

# ROCKY MOUNTAIN MEDICAL JOURNAL

Title Registered U. S. Patent Office

**Publication Office**  
835 Republic Building (1612 Tremont Place),  
Denver 2, Colorado  
Telephone AComa 2-0547



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**Ownership and Sponsorship:** The Rocky Mountain Medical Journal is owned by the Colorado State Medical Society and is published monthly as a non-profit enterprise for the mutual benefit of the organizations which jointly sponsor it. It is published under the direction of the Board of Trustees of the Colorado State Medical Society, assisted by an Editorial Board representing the sponsoring organizations. It is the Official Journal of the Rocky Mountain Medical Conference and those medical societies who are represented on the Editorial Board listed above.

**Advertising:** National representative: The State Medical Journal Advertising Bureau, Inc., 510 North Dearborn Street, Chicago 10, Ill.

**Subscription:** \$5.00 per year in advance, postpaid in the United States and its possessions; single copy 50c plus postage. Subscription is included in medical society dues of sponsoring state medical organizations.

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## EDITORIALS

**I**NTEGRATION OF TWO GREAT HOSPITALS in this region may cease in 1961, we note in the daily newspapers. The Denver General and Colorado General Hospitals may go their separate ways and end an era of cooperation in training

**"Pride and Prejudice"** medical students and young physicians, staffing the institutions, and in patient care. Varied opinions and mixed emotions are noted among our colleagues, many of whom have devoted hundreds of hours to both institutions over 30 years, more or less. In general, they are not surprised. Some "felt it coming on"; others "don't see how the fission could have been avoided"; a few believe it will be best for both, while a number predict misfortune for each. Those who are optimistic and less disturbed believe the hospitals will each give way a bit from their present impasse, sign a new agreement, and carry on very much as though nothing had happened, training and treatment essentially unruffled.

Tradition and affection for these hospitals are deeply rooted among many of us in the Rocky Mountain area. Distinguished physicians and surgeons have manned the services. They were the family doctors, the able surgeons, the teachers who imparted dignity to the medical profession and its general hospitals during several decades. It was they who brought today's citizens into the world, saved their lives, preserved their health, and sired many sons who caught the torch and followed in their footsteps. The old guard sought the staff appointments to uphold our profession's tradition of service to all regardless of ability to pay. They toiled as good citizens, teachers, and benefactors.

With the great growth in the West, the scene necessarily changed. Communities have grown faster than their hospitals. More beds, more wings, more doctors and help in every department became mandatory. Time and energy of medical men began to bend under the stress of private practice, decentralization of offices, specialization and unavoidable

concentration of work in fewer hospitals. State and county hospitals have done the only thing they could do—employ a gradually increasing number of full-time staff and faculty members. The volunteer faculty inevitably came to be less essential, their lectures and calls for consultation fewer and to the vanishing point. Not needed—perhaps; not wanted—definitely! Whose loss? This is a matter of speculation, but one might name the students, the patients, and younger faculty members as most likely and unsuspecting victims.

In metropolitan areas where there is a medical school, medical men seem gradually to find themselves in one of two camps: those who are "in" and those who are "out" of the university. Thus, our experience is not rare. Perhaps the trend is an evil encumbent upon growth; possibly divorce of major general hospitals is a disguised blessing—if it could lead to healthy competition to make each one the place most likely to succeed, the place where every one of us would prefer to be taken when himself an accident victim. Some of us are forever indebted to the busiest emergency room in the territory for saving the lives of our loved ones during a critical hour. When every intern and resident and each staff member vows that his shall be the best hospital there is for every patient who enters—then the confidence of the citizens and their elected representatives will be won. Student and undergraduate training programs will thrive, and that hospital will attain singular success in the only enterprise which in the final analysis justifies its existence—patient care. This we wish for our hospitals, and everything else is secondary. Possibly cleaning the slate and starting over will permit newer and more effective utilization of talent, experience, and research in the future. The doors can never be closed upon progress, and new avenues of cooperation will be explored by members of a profession whose sole purpose is service to its fellow men.

(We felt that the following statement by the Pharmaceutical Manufacturers Association deserved widespread publicity.—Editor)

**W**E, MEMBERS of the Pharmaceutical Manufacturers Association, recognizing our responsibilities and obligations to promote the public welfare and to maintain honorable, fair, and friendly relations with the medical

**Ethical Drug  
Promotion\***

profession, with associated sciences, and with the public, do pledge ourselves to the following statement of principles:

1. Prompt, complete, conservative and accurate information concerning therapeutic agents shall be made available to the medical profession.

2. Any statement involved in product promotional communications must be supported by adequate and acceptable scientific evidence. Claims must not be stronger than such evidence warrants. Every effort must be made to avoid ambiguity and implied endorsements. Whenever market, statistical or background information or references to unpublished literature or observations are used in promotional literature, the source must be available to the physician upon request.

3. Quotations from the medical literature or from the personal communications of clinical investigators in promotional communications must not change or distort the true meaning of the author.

4. If it is necessary to include comparisons of drugs in promotional communications, such comparisons must be used only when they are constructive to the physician and made on a sound professional and factual basis. Trademarks are private property that can be used legally only by or with the consent of owners of trademarks.

5. The release to the lay public of information on the clinical use of a new drug or of a new use of an established drug prior to adequate clinical acceptance and presentation to the medical profession is not in the best interests of the medical profession or the layman.

6. All medical claims and assertions con-

tained in promotional communications should have medical review prior to their release.

7. Any violation of these principles brought to the attention of the President of the Pharmaceutical Manufacturers Association shall be referred by him to the Board of Directors.

**W**HEN "the time has come to speak of many things" in the wide-scope endeavor to implement a new and modern program in mental health for Colorado or any other state, we stand in danger of becoming lost among the

**Mental Health—  
The Role of the  
General Physician**

cabbages and kings, unless we take frequent readings of our position. Toward this end, it is meaningful to refer again to the basic aim of reorganizing the program—that of reversing the formerly irreversible progress of the mentally ill patient to overcrowded custodial hospitals which are too often handicapped in providing dynamic, remedial psychiatric care.

We have outlined three major zones of defense against mental illness.\* By way of recapitulation, the first and therefore more immediate and potentially effective zone lies in the resources of the patient's own community. The second zone includes the specialized psychiatric facilities such as intensive treatment hospitals, out-patient evaluation and treatment facilities attached to medical centers, district-centered nursing homes for the aged, day and night hospitals, halfway houses, and a variety of other services. These are the special resources to which the community should be able to turn with freedom and frequency for definitive help. The third zone, under this new plan, continues to be the long-term treatment hospital, which will be smaller than previously and therefore better equipped to provide effective care. In the future, it is hoped, the flood of patients entering this hospital, and the trickle who return to the community will be equalized to a steady, two-way flow less costly in both money and human resources.

In the construction of new facilities and

\*A statement of principles adopted by the Pharmaceutical Manufacturers Association Board of Directors on May 24, 1958.

\*Ebaugh, Franklin G.: Mental Illness, Reversible and Irreversible; J.A.M.A. 1959, 171, 377-380.

the reorganization of existing ones, the second and third zones are receiving active attention at the present time. It is toward the first zone, the community, where both the fungus of destructive mental illness and the seeds of reconstructive recovery thrive, that we must now focus the emphasis on reorganization. The major requirements for an efficient mental health program are that we organize latent professional and social resources "back home" in the individual community; and that we develop four-lane, multi-directional highways of referral and communication across all three major zones of defense. In final analysis, no matter how superior the master plan or the dedication of psychiatric and lay leaders at a state level, the strength of the mental health program, like that of any chain, abides in the forging of its individual links—at the community level.

Today the impetus of mental health reorganization lies less with a plan, a hospital bed, or a dollar than with a man. That man is the general physician, whose medical practice, interpersonal relationships, and identification with the grassroots of his locality eminently qualify him for professional-social leadership in this endeavor. In this age of specialization, it is the general physician who most often becomes a "family doctor" to his patients, who deals in what I choose to term "person illness," as distinguished from "organ illness." It is he, who by the very nature of his motivation and specialty, forms the strongest communicative relationships with his patients, and who maintains a clear concept of the multiple causation of disease. The social, emotional, environmental, physiologic, and organic aspects of illness are concentric circles that ring his understanding, diagnosis, and prescription of treatment for each patient. It is, then, in his office that the first symptoms of mental illness are most frequently observed, and the predisposing circumstances for such illness are most freely confided. His role in the first part of the Mental Health Triad—prevention—is thus automatically established.

The key function in the second part of the triad—evaluation—also most often accrues to the "family doctor." He is asked, "What do we do?" about the family relationship

problems which may be producing psychosomatic illness in one parent, alcoholism in the other, and delinquency, learning inhibitions, or nervous tics in the children. He is also in a position to recognize the potential resources which can be developed into referral sources, treatment facilities, and concrete answers to his worried patients. He can then take the role of social therapist at the level of the second part of the Mental Health Triad, evaluation, and can channel patients to proper treatment resources, where the third aim of the triad—management with modification—is to be achieved. With more adequate compensation of physicians through modern health insurance plans, there are few remaining barriers to a smooth integration of mental health care with general medical practice.

In almost every community, and certainly in every section of the state, there are resources which can emulate and sometimes improve upon the role of a community mental hospital. Psychiatric units in general hospitals are perhaps the most effective and rewarding, particularly when an out-patient mental hygiene clinic is attached. Among the rewards of such an organization are the following: (1) Immediate treatment of acute outbreaks of mental illness, including potential suicides, and prompt and unhampered management of alcoholic patients; (2) therapeutic help through the out-patient clinic for individuals able to continue functioning in the community, and "follow-up" for discharged hospital patients; (3) prevention of the isolation of the psychiatric patient, and the maintenance of his "life-lines" to the community; (4) re-unification of the psychiatric specialty with general medicine, which results in increased communication, and greater accessibility of psychiatric consultation for medical problems; and (5) increased understanding and acceptance of mental illness by hospital personnel, general medical patients, and the community.

In the planning of any treatment program for the mentally ill patient, it is crucial to remember that to provide him with feelings of continued usefulness (upon which much of his self-esteem depends) is to invoke one of the strongest possible therapeutic agents. Too frequently when patients decompensate

into a neurotic or psychotic adjustment, they give up their "life-lines" to meaningful relationships and environmental participation; they relinquish their feeling of usefulness, and thus their motivation to adjust or even to live. This phenomenon, often conspicuous in physical illness, is even more notable in mental illness. This is the core consideration in developing means of treating patients within their own communities, and the main reason for preventing hospitalization from being an experience in isolation.

Meaningful work can be undertaken by many mentally ill individuals, even when their condition requires full-time hospitalization. By "meaningful work" I most certainly do not mean "artsy-craftsy stuff," but the core householding and office work of the hospital, to which appropriately placed and supervised patients can contribute a great deal. Day-and-night hospital policies relieve the monotony of hospitalization for the convalescent patient, and enable him to conquer his fear of the later break with the hospital. Some patients are able to manage stress-graded outside jobs during the day, but are not ready for the impact of family relationships on a 24-hour basis. Work activity increases self-confidence and sometimes relieves crushing financial burdens during the latter stages of recovery; such programs can be arranged by working with mature, community-oriented employers. Halfway houses, where patients can live outside the hospital routine and yet receive environmental guidance by trained personnel, often enhance the effects of long-term psychotherapy and "grade" the process of rehabilitation.

Innumerable variations of psychiatric treatment and rehabilitation plans can be devised to fit the needs of the individual community. First responsibility for such development rests with the local medical society and its members, who in most cases are guaranteed the help of an enlightened citizenry. The mental health story has been told, and the advances in psychiatry and general medicine duly advertised. Increasing numbers of patients recognize their own emotional problems or those of family and friends, and seek the help they know should be available. It is now the responsibility of all of us—psychiatrists, general physicians,

and other medical specialists alike—to play the role which is rightly ours in guarding both the mental and the physical health of all the citizens of the community.

Franklin G. Ebaugh, M.D.

**I**T MAY BE A LONG TIME before a patient with a prescription gets around to taking the medication. The reason—mail-order prescription schemes, now being promoted across the nation and centering publicity on cut-rate prices. Instead of taking his prescription to his pharmacist, the patient drops it in the mail to one of these operations. From seven to ten days later, the filled prescription comes back, perhaps too late to do its intended job.

Prescriptions for narcotics the mail-order houses refuse to dispense. Others are refused for their own convenience, especially prescriptions which require compounding. Because these depots operate on an impersonal assemblyline basis in a jurisdiction where only the supervision, rather than the actual dispensing, by pharmacists is required, the danger of errors is increased. Such schemes make it convenient for practitioners, unauthorized to prescribe in their own states, to write prescriptions that will be filled by distant operations. It is virtually impossible to check the source or to offer professional advice to the patient when he receives his medication. The greatest opportunity for mail-order promotion has been the geriatric market, where public attention has been mostly concentrated in recent months.

That these mail-order prescription schemes are a menace to public health was emphasized by Dr. George M. Fister, a member of the American Medical Association Board of Trustees, in an address to the recent meeting of the American Pharmaceutical Association House of Delegates. Physicians, he noted, can warn their patients of the flaws in these mail-order operations. "The personal touch is still essential," he said. America's high standard of medical care was "founded on this firm foundation of personal service, and we would be foolish indeed not to preserve it."

## Medicine's stake in our older population\*

Edward L. Bortz, M.D., Philadelphia, Pa.

*Life, liberty, and the pursuit of happiness are the inalienable rights of all, including our oldsters. Enforced retirement during the productive years after 60 plus governmental socialized medicine will stifle the "pursuit," rob the oldsters of their happiness, and deprive the rest of us of the fruits of their labor.*

THE FEDERAL GOVERNMENT has directed the Department of Health, Education and Welfare to convene a White House Conference on Aging in January, 1961. A special staff on aging has been set up. A group of some 120 citizens from the various walks of life, industry, labor, education, the professions, social groups and distinguished, private citizens met in Washington last June to initiate activities at the state level. In this group of 120 there are about a dozen doctors of medicine. Funds have been appropriated up to \$15,000 for each state from the federal grant and it is expected that the states will contribute an equal sum to carry on the studies required at the local level.

The medical profession has a primary obligation and, indeed, a unique opportunity to

play a leading role in the search for better understanding of the many new, unsolved difficulties which have arisen simply because there suddenly has appeared a large number of older men and women. It is commonly known there are deep dissatisfactions and fears in the hearts and minds of millions of unhappy aging fellow citizens. Their future years are often darkened by uncertainty. This is largely the result of totally outmoded mores of a culture, a way of life, which the communities of our nation evolved half a century ago. The attitudes, including terms for employment, housing and social relationships, which developed soon after the turn of the century, were satisfactory when the older individuals were relatively unimportant because there were so few of them.

### *Many people are living longer*

The control of disease and the increasing efficiency of the scientific methods have increased the chance of survival. Accordingly, many people are living longer. Some of these may be considered as medicated survivors, that is, those whose physical existence can now be continued although their personalities, their individualities, have disintegrated.

In the second scene of the first act of Shakespeare's "Julius Caesar," in the dialogue between Brutus and Cassius, the latter remarks, "Men at some time are masters of their fates: the fault, Dear Brutus, is not in our stars, but in ourselves, that we are underlings." There is another quotation with a similar idea from Act 1, Scene 1 of "All's Well That Ends Well," a line which Paul White

\*Presented at the Rocky Mountain Medical Conference, Denver, Sept. 11, 1959.

enjoys quoting, "Our remedies oft in ourselves do lie which we ascribe to heaven."

In the rapidly changing physical world with travel speeds exceeding the rate of sound and channels of communication between distant lands shrinking to minutes, the traditional habits of living and thinking are in need of drastic revision. It is becoming possible to greatly modify the external environment in terms of housing, air-conditioning, local transportation, sanitation and, indeed, one might include educational and community activities as well as the gadgets for making the existence in the home more interesting. Probing still further, it is becoming more and more possible to control the internal environment of body systems and tissues. In essence, this is what is taking place at a rather crude level by the use of diet, hormones, drugs and patterns of physical activity to increase human stamina.

#### **"Back to Methuselah"**

Consideration of the external and internal environments of the individual offers an approach to an evaluation of his performance potentials. In my opinion, this represents the top priority for research in our quest for better control of the common diseases and deteriorations which are the major threats to man's continued existence. This represents the challenge of medical science.

In George Bernard Shaw's "Back to Methuselah" he makes the current observation, "modern man is not God's last creation." In other words, we, ourselves, are subjects of experiment on the part of nature. The vast amount of research that has been carried on in plant and animal husbandry has produced a remarkable number of new kinds of flowers, fruit, vegetables, chickens, hogs and cattle. In the practice of medicine the physical momentum of living processes can be dramatically altered by using hormones to correct deviations of pituitary, thyroid, adrenal or gonadal function. Animal experiments on longevity, carried on by McCay and others, has markedly extended life expectancy with preservation of function and fertility far into the age period earlier regarded as the senile portion. Each of us study our own reactions and performance under varying conditions of diet and exercise. The clinical research pro-

gram now being carried on in The Lankenau Hospital in Philadelphia is engaged in measuring performance under various kinds of diet, exercise, temperature, humidity and other variables in different age groups. The point we wish to emphasize is that, through the disclosures of science and the refined technics now readily available, the biologists and those engaged in the practice of medicine are discovering ways and means of protecting the physical and mental vitality of individuals far beyond the biblical three score and ten prediction. The impact of huge numbers of elderly citizens in the population has created new and vexing problems of socio-logic, economic and political significance. These are the result of the knowledge that science has discovered in studies and experiments in the fascinating and ever-changing phenomenon of biological living. Preceding any other phenomenon of existence and aging, the first original condition is the existence of a physical growing body. The evolution of this structure, the way it is nourished and how it develops is capable of alteration. Recognition of this fact should help immeasurably in keeping us oriented.

Those engaged in the health professions have an almost limitless opportunity in influencing the direction, quality of growth and development of our expanding population. As the diseases which interfere with man's progress are brought under control, it has already been demonstrated that man is capable of living much longer. Within two decades some 25 million of our population will be 65 years of age and beyond. Whether or not this group will be a burden or an asset will be determined by the manner in which society formulates ways and means to encourage optimum health practices.

#### ***Handwriting on the wall***

To follow theories and recommendations that those attaining 65 should look to the government for services which they should furnish for themselves might well result in bankruptcy of our nation's fiscal policy. This is true because the cost of services they, themselves, can provide could become an avalanche. It is of the greatest importance that national leaders who are in positions of influence and prominence should read the

handwriting on the wall, and make the most of the glorious opportunity which is facing mid-twentieth century man.

Society stands to gain in every way if it will develop a progressive and positive health program that will enhance the physical vitality and promote the mental health of our senior citizens. With automation rapidly reducing physical drain on the working man, his strength can be conserved, for there will be less physical wear and tear. There appears the opportunity for preserving body and mind against premature breakdown.

A healthy individual may be regarded as one who is enjoying a state of physical, mental, and social well-being. It is much more than absence of disease. It implies an interest on the part of the individual himself in maintaining a state of constant fitness which might be described as dynamic homeostasis; a happy and invigorating sensation which equips an individual to carry on his daily activities with a minimum of drain on his resources. The point I want to emphasize is the fundamental responsibility of the individual for his own destiny. As such, health cannot be purchased. No doctor nor hospital can confer on an individual a state of healthy well-being. Positive health is not primarily a problem for the medical profession, nurses, and hospitals. Flabby bodies, dull minds, frustrations and personal incompatibilities often result in physical ineffectiveness and mental complexes which drive individuals into doctors' offices. The increasing complexity of modern society has been blamed for the marked increased in emotional and nervous disturbances. Certainly these troubles, as presented by unhappy and discontented patients, make up a large amount of the physician's daily work. As people attain the later stages of life, the inclination to withdraw from work, social contacts and practices which meant so much in earlier years tends to bring about an isolation which may eliminate supports that are essential for the enjoyment of life. The social bonds established with fellow workers on the job, with friends, with social groups and other contacts are of basic importance in the later, mature years. The elder isolate is likely to be a forlorn, unhappy individual. At occasional intervals we all want to be alone. However, the

sustaining forces which surround one in his early, formative years and which are increased and solidified through the middle years are more than ever a necessity as one approaches the later, mature period of one's life journey. The loss of personal contacts with the family, co-workers and friends may invite not only mental but physical deterioration.

### ***Health examinations***

The custom of health examinations at periodic intervals for groups of executives is being utilized by more and more of the large corporations and industrial concerns. The theory behind this is that from the cold dollar and cents approach alone it is exceedingly costly to train a man by experience over a number of years for a top position, only to have him become a victim of a coronary occlusion or a stroke in the mid-fifties of his life. There are a number of warning signs which, when properly evaluated, may lessen the liability of an individual as a candidate for a catastrophic vascular accident such as an occlusion of a cerebral or coronary artery.

Overweight, hypertension, long continued excess fat in the blood stream, flabby muscles and pendulous portions resulting from physical inactivity, prolonged exhaustion—these are commonly accepted signs of an unsatisfactory state of body health. There are innumerable nuisance disorders, first of a functional kind, which later may result in organic lesions in the circulatory, digestive, biliary tract or nervous systems. The curious fact is that, as a nation, we have been relatively insensitive to the importance of health maintenance as a national asset. The experts quibble over minutiae of the cholesterol problem, yet all readily admit that overweight and high fat concentration in the blood stream with hypertension and sluggish function lead to disaster.

### ***Research***

Medical science has advanced so rapidly that the faculties in our 85 schools of medicine are striving to attain a teaching program which will include the major basic essentials bearing on health and the control of diseases. There is increasing awareness of preserving

a healthy balance in the daily routine of our patients. This interest takes on added importance as people are being given the opportunity of longer life.

A new approach is indicated. The philosophy of the practice of medicine is undergoing a most invigorating and exciting transformation. The time has come when, in addition to the miracles of curative medicine which are taking place daily within hospital walls throughout the nation, the encouragement of positive health practices, directed towards improving physical and mental well-being and lessening the tendency of disease and deterioration, is becoming a part of the busy practitioner's daily activity.

There is a need for the doctors of this nation to take a new and more realistic point of view concerning the value of senior citizens in the life of our nation. There needs to be a more favorable attitude taken towards them so that they may be encouraged in self-development and self-expression. Physicians should assist individuals who are anticipating retirement to be ready for their altered status. Planning for the second career, for the added years which should be healthy, may be part of the counsel the physician may furnish his aging client. It is noteworthy that leadership at the local, state and national levels in the fields of health, happiness and living successfully as older members of society is being demonstrated by others than the medical profession. The one group that has the greatest opportunity to bring about a more vigorous, a more meaningful mature existence for aging men and women is the medical profession. It is heartening to note the increase in the activities of the American Geriatrics Society and the members of the Gerontological group. Thus far, these organizations have been feeling their way. The multiplicity of problems has been confusing. Caution is essential. Unproved statements only add to the confusion. Yet progress is being made. The federal government is encouraging various organizations throughout the nation who are carrying on research in the biologic, sociologic and economic aspects of aging. More and more doctors are adding their influence and are becoming active participants in this exciting work.

In the field of education there is hope that

the huge disparity between available knowledge and living customs can be breached. If knowledge is power, then the way to bring more power into the individual lives of all of us is to enlarge and enrich our fund of knowledge. Providing for the care of the physical and mental health of our older citizens of the future, of which we ourselves are members, is the responsibility of American medicine. If, in the coming years, we are to have a society in which our older mature citizens are a healthy, well integrated, constructively active group, we can predict that they will make a great contribution to the stability of the future of our nation through added knowledge, understanding and wisdom, the dividends of healthy added years. We may look forward to a society enriched by the influence of this dominant group of elderly citizens. To preserve the incentive for living is, we believe, one of the doctor's chief responsibilities. This we interpret as leadership of the highest quality in the practice of medicine and in the realm of community life. It must be based on serious, careful study and thought, but such time consuming self-development on the part of doctors will pay rich dividends.

#### *A blueprint for living 100 healthy years*

If the evidence now available is accumulated and analyzed with reference to extension of the human life span, it can be predicted with reasonable certainty that more individuals are going to live far beyond the biblical promise of three score years and ten. Since experiments with lower animals have already demonstrated their average life expectancy can be doubled, the human life span is certainly susceptible of extension.

With the life span of modern man approaching nearer the century milestone, it might prove helpful to visualize a timetable, as it were, that would emphasize the various features of the progressive decades as one lives through one period into another. Certainly, since science promises added years, the advisability for making definite plans for utilizing these added years becomes evident.

On the basis of a round century of living, the years of future man might be divided into trimesters of 30 years each. In the first third, from one to 30 years, an educational

program centering on the basic facts of life with teaching, in simple terms, of the care of the growing body would seem of first importance. Instruction in basic growth and development with explanation of the need for human relationships should be included in the educational program. In the last part of the first trimester, education for the first career, as is now the custom, should be a major item.

In the second trimester, from 30 to 60 years, there would be the establishment of a family and entrance into the first career which would make the individual and his family self-sustaining as is the practice today. The principal change which is so necessary now in the educational philosophy of the nation is the attitude towards the critical milestone which appears on the life timetable around the age of 60 or 65. Today society, with the approval of government, industry, labor and the professional groups, writes a man or woman off with the dreaded terms of emeritus or retiree. In our program here suggested, the retirement period would be eliminated where it now stands. It would be moved back to the years 85 to 90. Instead of removal from the working group of the nation, on reaching the summit of the useful years from the age 60 to 70, entrance into the second career should take place. This should be a period of continued growth and development, particularly for increase in knowledge, understanding and, let us hope, wisdom, with a larger participation in community affairs. In this way society could more completely utilize the skill and experience of well-adjusted senior citizens.

#### *Harvest years, evergreen years*

The years from 60 on should, in reality, represent the harvest years, evergreen years. Whether this becomes a reality will depend upon interaction between the individual, his family and the community. If barriers which are so evident today are not replaced, the later years of life for millions of our fellow citizens may be but a prolongation of individual deterioration. We need to exercise some creative imagination and face facts. There is abundant evidence that more and more of our citizens are continuing their productivity and contributions to the general

welfare through the eighties and nineties. There will be many more of these in the future, that is, if the leaders of society, in which group we place the doctors of the nation, face the issues frankly.

If retirement is set at 85 or 90 years of age, then beyond this milestone would be regarded as the twilight years with moderate recession. In the evening of life the final let-down would be in the nature of things with the rhythm of long, vigorous, useful life representing the crowning glory for the individual. At the close of such an existence there should be the sense of completion. Prestige would be won through individual achievement. In essence this, we believe, is the philosophy of human life upon which our nation with its glorious dream of human dignity was founded. In describing the inalienable rights of man, "life, liberty, and the pursuit of happiness," please note that the key word for the individual is "pursuit." Note also that there was no mention of security. The concept closest to the heart of every American, the word which represents our national philosophy, our hope for the future, is freedom. The history of nations which have declined and disappeared in the past is replete with the softening of the population, and the turning of their minds to the search for security. Like happiness, as an end in itself it is not likely to be attained through the direct approach. The pursuit of happiness in its fullest essence implies, we believe, a concentrated effort on the part of the individual to exercise his best potentials as an individual and as a citizen. This philosophy is being challenged today.

In the rapidly changing world in which we find ourselves with the fabulous promises of science for a longer, richer and more completely human existence, the medical profession is face to face with its greatest challenge and its greatest opportunity. In the ongoing struggle of man in his search for a more satisfying way of life, the practitioner of medicine has always been in the forefront. Since time began, he has been the father confessor for many of his troubled patients. In the recent years, the technical complexities and demands on the struggling embryo physician have been so all-embracing and demanding that little attention has been de-

voted to the broader, but exceedingly significant, intangibles which, in days far in the past, were so much a part of the family doctor's prestige.

In the practice of geriatric medicine, there is a need for a return to the consideration of the individual as a living human being. Not only the sick heart, the diseased kidney or liver, but the patient with the illness and the impact of the illness on the family as a whole must be evaluated. There is nothing new in this suggestion; it is rather a return to a philosophy of medical practice that has

been brushed aside or, shall we say, neglected, due to the fervor of search for the chemical intricacies and fluctuations resulting from disease processes.

In our national cultural reformation, the medical profession, by emphasizing positive health, will encourage the continued growth and development of those who are reaching the higher altitudes of long life. By exercise, energetic leadership in the elimination of sickness, social and economic barriers to healthier living, medical science may find its richest field. •

## Sheath replacement in tendon repair\*

Albert E. Hochstrasser, M.D.,<sup>†</sup> Thomas Ray Broadbent, M.D.,  
and Robert Woolf, M.D., Salt Lake City

### *Experimental study with Ivalon.*

THE REPAIR OF A TENDON remains a procedure often followed by poor results. The majority of these failures can be explained as the result of specific reparative processes. Under normal circumstances, the tendon is embedded in a layer of areolar tissue which permits ample gliding motion and also supplies the tendon with capillaries and lymph vessels. In areas of angulation of the tendon, tendon sheaths as specialized structures are necessary to provide support and nutritional exchange. The tendon is confined within a tunnel of unelastic connective tissue fibers which are lined with a smooth synovial membrane. On the convex side of the tunnel, this parietal synovial membrane is reflected upon itself and encloses the tendon within the lumen of the sheath, functioning as a mesotenon loose enough and elastic enough to

allow unhindered longitudinal excursion of the tendon.

Importance of these surrounding structures becomes evident in injury to the tendon. Healing of a repaired tendon outside of a tendon sheath depends on the fibroblastic proliferation of the paratenon. Within a period of about three weeks, the divided portions of the tendon become united and solid. As long as the site of the tendon repair remains embedded in gliding structures (i.e., fat tissue), the mobility of the tendon is not unduly impaired.

Repair of a tendon within a sheath, however, will often be unsuccessful. The synovial layer on the surface of the tendon as well as the synovial lining of the tendon sheath respond with proliferation, becoming broadly attached to each other with obliteration of the capillary space between visceral and parietal synovial layers. The tendon is thus firmly caught in scar tissue and is functionless.

In the past, numerous attempts have been made to prevent adhesions by replacing the tendon sheath with an artificial gliding sur-

\*Essay given second award in 1958 Regional American College of Surgeons Original Resident Research Contest.

<sup>†</sup>Dr. Hochstrasser is Resident in Plastic and Reconstructive Surgery. From the Department of Plastic and Reconstructive Surgery, W. H. Groves Latter-Day Saints Hospital, Salt Lake City.

face<sup>2,5,9</sup>. In this study, Ivalon\* sheaths were placed around repaired tendons after the original tendon sheaths had been removed. It was thought that in comparison to solid or sheetlike plastic structures used for sheath replacement, Ivalon might be porous enough to permit vascularization of the repaired tendon. Furthermore, when wrapped around a glass rod and boiled, Ivalon forms readily an elastic tube with a smooth inner surface which possibly could permit unobstructed gliding of a repaired tendon.

#### Method and technic

In order to study the use of Ivalon as an artificial tendon sheath, flexor profundus tendon repairs were carried out bilaterally on 10 mongrel dogs, ranging from 12 to 17 pounds in weight. Five of these dogs succumbed to postoperative inanition, possibly due to inactivity, or accidents.

The arrangement of flexor tendons in the dog is quite similar to that in the man's hand<sup>1</sup>. Each digit is supplied with a profundus and sublimis tendon which insert into the distal and proximal phalanx respectively. At its insertion, the sublimis tendon is also divided into two portions, allowing the profundus tendon unobstructed passage in the midline. At the metacarpophalangeal level, both tendons are guided by a firm fibro-osseous tunnel which is lined with a tendon sheath of about 1.5 cm. in length.

Following the technic described by Gonzales<sup>1</sup>, the flexor tendons of the second and fifth digit were exposed from the mid-palm to the proximal phalanx, the fibro-osseous tunnel and the tendon sheath removed, and the sublimis tendon advanced and resected. The profundus tendon was divided within the region of the removed tendon sheath. The Ivalon sheath was prepared by lightly wrapping a 1 cm. wide and 0.2 cm. thick strip of Ivalon around a glass rod of 0.3 to 0.4 cm. in diameter. The Ivalon strip was secured with gauze and boiled in water for five minutes to make a tubular sheath with a smooth inner surface.

The divided tendon was threaded through the Ivalon tube and anastomosed to its cut end with 5-0 silk sutures. The Ivalon tube was then slipped down over the point of

anastomosis. A similar anastomosis, Bunnell type, was performed on the contralateral side but the resected tendon sheath was not replaced with Ivalon. Complete relaxation of the suture lines was obtained with a stainless steel suture through the profundus tendon at the wrist, at which level the tendon is still undivided in its digital components. The forelegs were immobilized in waterproof casts for four weeks.

#### Results

The 10 tendon repairs used for analysis in this study and 10 controls were examined grossly, and with cross and longitudinal microscopic sections. All slides were stained with hematoxylin eosin.

All 10 control repairs, where the tendon was sutured after the tendon sheath was completely removed, were firmly and normally united. The site of repair was immobilized with dense fibrous adhesions, as expected, since there was no remaining paratendinous tissue at the level of repair to prevent the attachment of the tendon to either periosteum or dermis.

In the 10 repairs where the tendon sheath had been replaced with Ivalon, no gliding of the tendons was found. The tendons were adherent to the Ivalon tube, and the Ivalon sheath itself was attached to skin and bone by heavy scar tissue. In four of the 10 repairs, the entire space between the united tendon and Ivalon sheath was obliterated with connective tissue (Fig. 1). In the remaining six cases, the tendon ends were separated and attached to the Ivalon sheath at its ends. In the central portion of the tube,

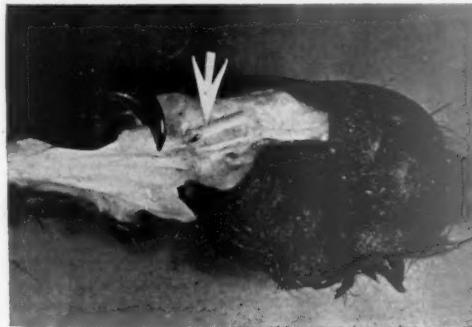


Fig. 1. The united tendon is firmly attached to the Ivalon sheath (arrow) and the sheath filled with fibrous tissue.

\*Polymerized polyvinyl.

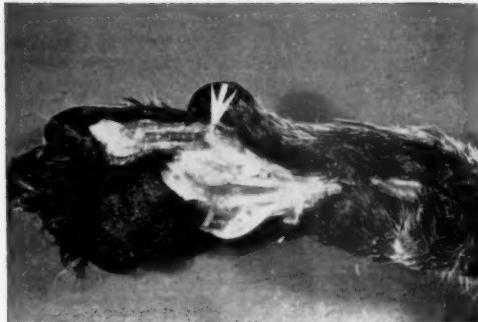


Fig. 2. The tendon is not united, but retracted to the distal thirds of the Ivalon tube. The ends of the tendon are blunt and adherent to the Ivalon sheath.

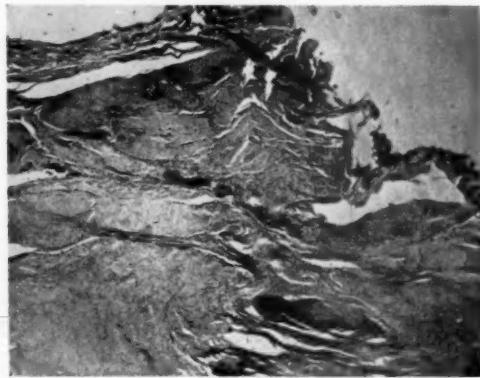


Fig. 3. Longitudinal section of unsheathed tendon repair (control repair). The tendon ends are united with fibrous tissue, and broadly adherent to the surrounding soft tissue.

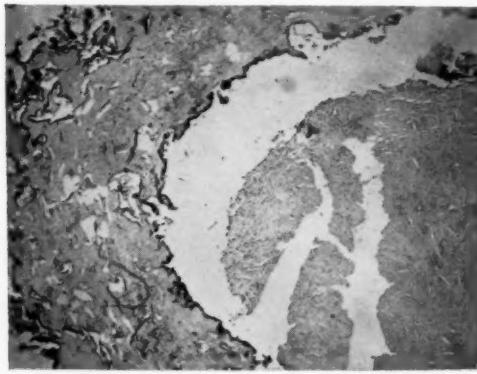


Fig. 4. Cross section of a tendon within the central portion of an Ivalon sheath. The tendon is partially necrotic. There is no ingrowth of connective tissue or vascular buds through the Ivalon sheath.

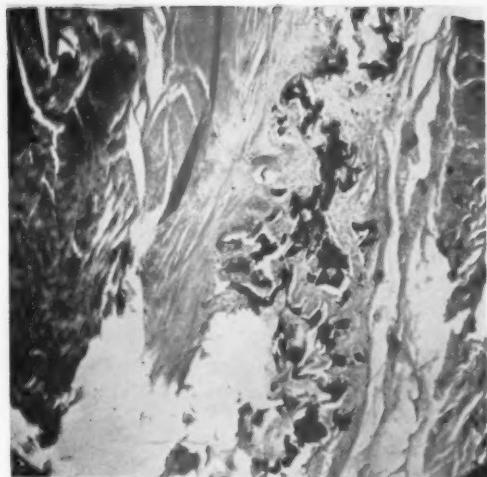


Fig. 5. The Ivalon sheath (black crystalline structure) is completely penetrated by fibrous tissue which forms broad adhesions to the surface of the tendon.

connective tissue was absent and the ends of the retracted unhealed tendons were rounded and blunt (Fig. 2).

On microscopic examination, the control repairs showed fibrous union of the tendons and massive proliferation of connective tissue to the surrounding structures (Fig. 3).

In the tendons with separation of the repair and adherence to the Ivalon sheath, the free ends of the tendon were in some instances necrotic and in others devoid of connective tissue proliferation or vascular budding to supply the tendon repair (Fig. 4).

The porous Ivalon sheaths were penetrated by an ingrowth of fibrous tissue which was particularly pronounced towards the ends of the Ivalon tube. In these areas, the connective tissue fibers were broadly attached to the surface of the tendon (Fig. 5).

In repairs where the tendons were united and adherent to the Ivalon sheaths, the connective tissue had completely penetrated the mesh of the Ivalon sheath with obliteration of the space between tendon and sheath.

#### Summary

The patho-physiology of tendon injury and repair is outlined. In 10 controlled experiments with dogs, flexor tendon repairs were performed and the tendon sheaths re-

placed with Ivalon tubes. This investigation was designed to establish the feasibility of vascularization of a repaired tendon with a porous sheath substitute (Ivalon) and to determine the effectiveness of the Ivalon sheath as a structure that would allow gliding motion.

All 10 control repairs united solidly, but with dense adhesions. Six of the 10 repairs with Ivalon as an artificial tendon sheath resulted in nonunion of the tendon, and the retracted tendon ends were firmly adherent to the ends of the Ivalon sheath. In four of the 10 repairs with Ivalon sheaths, union of the tendon resulted, but with intense fibrotic attachment along the entire Ivalon tube.

Microscopic sections showed penetration of the Ivalon sheaths by connective tissue with the formation of fibrous adhesions to the tendon within. Frequent nonunion of the

tendon repair within Ivalon sheaths was apparently caused by inadequate blood supply due to insufficient or retarded ingrowth of vascular buds through the sheath. In no instance did the Ivalon sheath provide a gliding surface for a repaired tendon. \*

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## Intravenous hydroxyzine for postoperative nausea and vomiting

C. H. Moore, M.D., Cheyenne, Wyoming

*Interesting observations on  
parenteral control of the  
frequent postoperative nuisance!*

ORAL DOSES OF MECLIZINE HYDROCHLORIDE (Bonamine) alone or in conjunction with pyridoxine, provide protection from nausea and vomiting during and after anesthesia<sup>1,2</sup>. We have used this drug routinely as preoperative medication for three years with gratifying results. It can be administered only orally, limiting its use to patients where time and conditions permit oral medication. Introduc-

tion of a chemically and pharmacologically similar agent in parenteral form therefore led us to investigate its efficiency when used intravenously immediately prior to surgery.

Vistaril Parenteral Solution\* is a solution of hydroxyzine hydrochloride in water for injection U.S.P. It has been released for investigation in strengths of 25 mgm. and 50 mgm. per c.c. and contains 0.9 per cent benzyl alcohol as a preservative. Its chemical resemblance to meclizine can be seen in the structural formulae. Since hydroxyzine has antihistaminic<sup>3</sup>, ataractic<sup>4,5</sup>, spasmolytic, and anti-emetic properties<sup>6</sup>, its actions are similar to those of promethazine (Phenergan), despite its chemical similarity to meclizine. Unfortunately, the usefulness of prometha-

\*Pfizer Laboratories, Brooklyn, N. Y.

for JULY, 1960

zine in preoperative medication is limited by its tendency to cause hypotension. Hydroxyzine, on the other hand, has practically no effect on blood pressure<sup>7</sup>, and has the advantage of reducing the incidence of cardiac arrhythmia<sup>8</sup>. On rare occasions, parenteral hydroxyzine, when administered intramuscularly, produces marked local discomfort, swelling, or sterile abscess formation. The work of Duncan and Jarvis<sup>9,10</sup> demonstrating the histolytic properties of similar concentrations of benzyl alcohol (in this case used as a preservative in oily anesthetic solutions) leads us to believe that this phenomenon is probably due to the preservative, rather than to hydroxyzine *per se*. Since hydroxyzine parenteral is not obtainable without the preservative, and in order to facilitate observation of the effects of the drug, slow intravenous injection was utilized in this study.

### The method

Patients who were to receive an intravenous infusion in conjunction with the administration of an anesthetic were used as the subjects for this study. One hundred patients were used in the study and selection was random, except for the fact that it is unusual to induce anesthesia in children with intravenous agents on this service.

Premedication consisted of barbiturates by mouth the night before surgery and preoperatively, followed by appropriate doses of meperidine (Demerol) or morphine sulfate and scopolamine intramuscularly one and one-half hours preoperatively.

After the patient had been placed on the operating table and pulse, respiratory rate, and blood pressure had been recorded, 100 mgm. of hydroxyzine parenteral solution was injected intravenously, taking 10 to 15 seconds for the injection. The patient was then observed for a five-minute period, after which anesthesia was begun. In most cases, the needle used for injection of hydroxyzine was also used for subsequent infusions and drugs. Where anticipation of awkward surgical position or prolonged postoperative infusions made it seem desirable, a device permitting placement of a polyethylene catheter in a vein without resort to cut-down (Deseret

Intracath) was utilized, but the technic remained essentially unchanged.

In all cases where their use was deemed advisable, electronic monitoring devices were used to supplement the usual physical methods of determining the condition of the patient. Postoperatively, the patients were closely observed in the recovery room until fully recovered from anesthesia and both the patient and his clinical record were followed by the anesthetist for a period ranging from one day to three months. The site of injection (which had been recorded preoperatively) was checked for evidence of local inflammation and postoperative vomiting was noted. Retching, not productive of vomitus, was recorded as "emesis," but nausea (a purely subjective phenomenon and subject to variations in memory and personality) was not recorded. Table 1 shows the distribution in regard to age groups, type of surgery, and type of anesthetic.

### Results

Of 100 patients who received 100 mgm. of hydroxyzine intravenously immediately before induction of anesthesia, seven exhibited retching and/or vomiting during the im-

TABLE 1  
Distribution of cases by age, operation,  
and anesthetic  
(100 cases)

#### Distribution by age:

Youngest patient .....	9 years
Oldest patient .....	87 years
75 per cent of patients were between 25 and 70 years of age.	

#### Distribution by type of surgery:

Neuro-surgical	Ortho-pedic	Thoracic (& Cardio-vascular)	Abdominal	Miscel-laneous
30	20	7	25	18

#### Distribution by principal anesthetic administered (relaxants not tabulated):

Meperidine, nitrous oxide (with or without thiopental) .....	40
Pentothal, nitrous oxide .....	9
Cyclopropane .....	40
Regional .....	5
Ether .....	6

mediate postoperative period. The ataractic properties of the drug could not be accurately assessed in this study, since all patients had already received adequate preoperative medication; however, it was noted that the state of consciousness remained essentially unchanged. Despite the fact that the series included a disproportionately large number of neurosurgical procedures (Table 1), no significant cardiac arrhythmia was observed.

Twenty-seven patients displayed an interesting phenomenon varying from a simple clearing of the throat to a violent bout of coughing immediately following injection; in most cases, this phenomenon was transitory, mild, and self-limiting, but in one case it was of sufficient violence to cause us to discontinue injection after 50 mgm. had been administered. In another case, moderate laryngospasm on induction of anesthesia followed; this may or may not have been associated with the laryngeal stimulation caused by hydroxyzine injection. Two patients suffered from a mild, transient, postoperative phlebitis at the site of injection. One patient, who showed no signs of phlebitis in the immediate period following surgery, was seen three months postoperatively and found to have sclerosis of the vein which had been used at his initial surgery. However, this patient had a polyethylene catheter in place in the vein for five days postoperatively.

### **Discussion**

From our clinical experience and a review of the literature, it is evident that the

prophylactic use of antiemetics reduces the incidence of postoperative nausea and vomiting. Waters' study, covering 1,000 anesthetics, and carried out without the use of antiemetics<sup>11,12</sup>, would lead us to expect an incidence of nausea and/or vomiting of 23 per cent with nitrous oxide-thiopental, 35 per cent with cyclopropane, and 57 per cent with ether. Even after making allowances for the fact that our series included only vomiting, it is obvious that hydroxyzine had a favorable effect. According to the results of Albertson, et al.<sup>1</sup>, the incidence of postoperative vomiting following the use of meclizine (Bonamine) preoperatively is 18.5 per cent. Kinney<sup>2</sup>, who did not separate vomiting *per se* from "nausea and vomiting," observed an incidence of 23.7 per cent nausea and/or vomiting following the use of meclizine preoperatively.

It is concluded that parenteral hydroxyzine is superior to meclizine in the prophylaxis of postoperative vomiting.

### **Summary**

Hydroxyzine hydrochloride (Vistaril parenteral) was administered intravenously to 100 patients in conjunction with anesthesia and surgery. The incidence of postoperative vomiting was 7 per cent, versus an expected incidence of 23 to 57 per cent without any antiemetic or 18.5 per cent with meclizine. The most constant and annoying side effect encountered was coughing immediately following injection, which occurred in 27 per cent of cases.

No patient in this series demonstrated any significant cardiac arrhythmia in the course of anesthesia or surgery — a phenomenon worthy of further study. No patient exhibited any depression of blood pressure attributable to the drug. It is concluded that hydroxyzine exerts an antiemetic effect on the surgical patient which is superior to that of meclizine, as well as protection against cardiac arrhythmia, which is worthy of further study. Side effects of the drug were limited to directly irritative effects on organs and tissues. It is the belief of the author that these may well be the result of the use of 0.9 per cent benzyl alcohol as a preservative in this preparation —an agent which has known irritative and histolytic effects. •

references on next page

TABLE 2  
Results in 100 patients treated preoperatively with intravenous hydroxyzine (vistaril parenteral)

No. of patients	Postoperative emesis	Side actions and complications	
100	7	Cough on injection.....	27
		Generalized flush on injection .....	1
		Substernal burning sensation (heartburn) ..	1
		Sclerosis of injected vein .....	1
		Pain on injection (over course of injected vein) ..	1
		Phlebitis .....	1

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## Surgical removal of ruptured cervical intervertebral discs\*

Ralph M. Stuck, M.D., Denver

### *A new approach to the ruptured cervical disc.*

THE CLASSICAL OR COMPLETE posterior cervical laminectomy for the removal of cervical lesions of the spinal cord and other interspinal structures described by Stokey<sup>1,2</sup> and by Elsberg<sup>3,4</sup> was a standard procedure until the last few years. During this long period of time, no other approach to the cervical interspinal structures was developed in spite of the fact that in dealing with large ruptured cervical discs great difficulties were encountered and often the results were anything but perfect. Of course, some modification of the procedure occurred as the location and character of the lesion, the consistency of the disc and the location and extent of the osteophytes demanded it. But the approach was invariably posterior (Fig. 1).

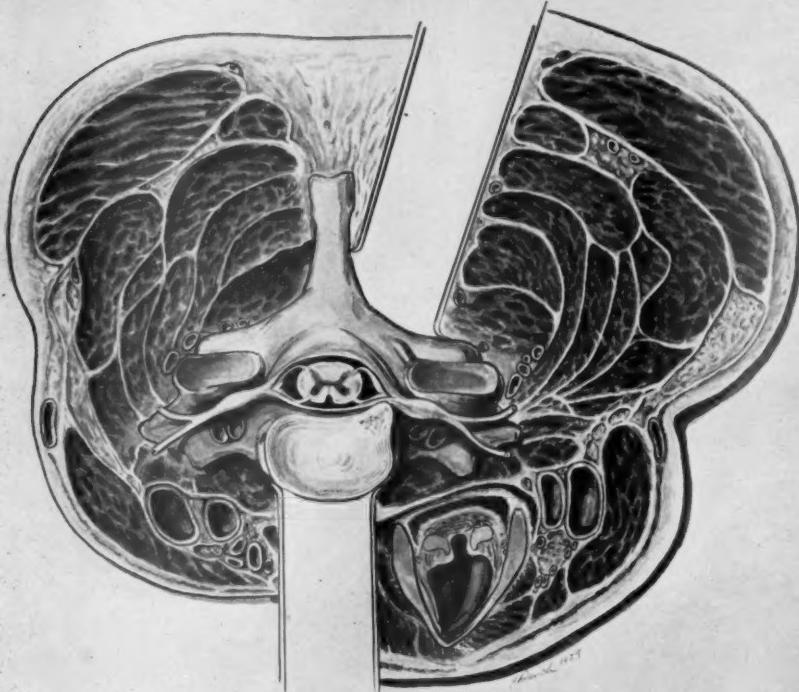
A simple "buttonhole" posterior cervical laminectomy involves few hazards and brings about gratifying results if the disc is small, soft and ruptured laterally against a solitary

nerve root. But, unfortunately, most cervical intervertebral discs requiring removal are not so conveniently placed, nor are all discs soft and easy to remove. Hazards are multiplied by the posterior approach if the ruptured disc is firm, if it is overlapped by osteophytes that encroach upon the spinal cord, if it is large or medially placed, or if it involves other discs. Multiple ruptured discs are much more common than was formerly recognized.

When these conditions are approached posteriorly, they require complete laminectomy or hemilaminectomy. During these procedures, intraspinal structures may be damaged by handling and any compression of the spinal cord existing before operation may be increased. The enveloping dura, nerve roots or the spinal cord may be accidentally seared as epidural veins surrounding the spinal dura are coagulated to secure adequate exposure of the ruptured discs. The spinal cord may be damaged and deficiencies of neural function result when the spinal cord is retracted in the transdural approach to the lesion. Inevitable neurologic deficiency results if the spinal cord cannot be retracted enough to expose the lesion for removal with-

\*Presented at the 56th Annual Meeting of the Wyoming State Medical Society, Jackson Lake Lodge, June 13, 1959.

## POSTERIOR LAMINECTOMY



## ANTERIOR APPROACH

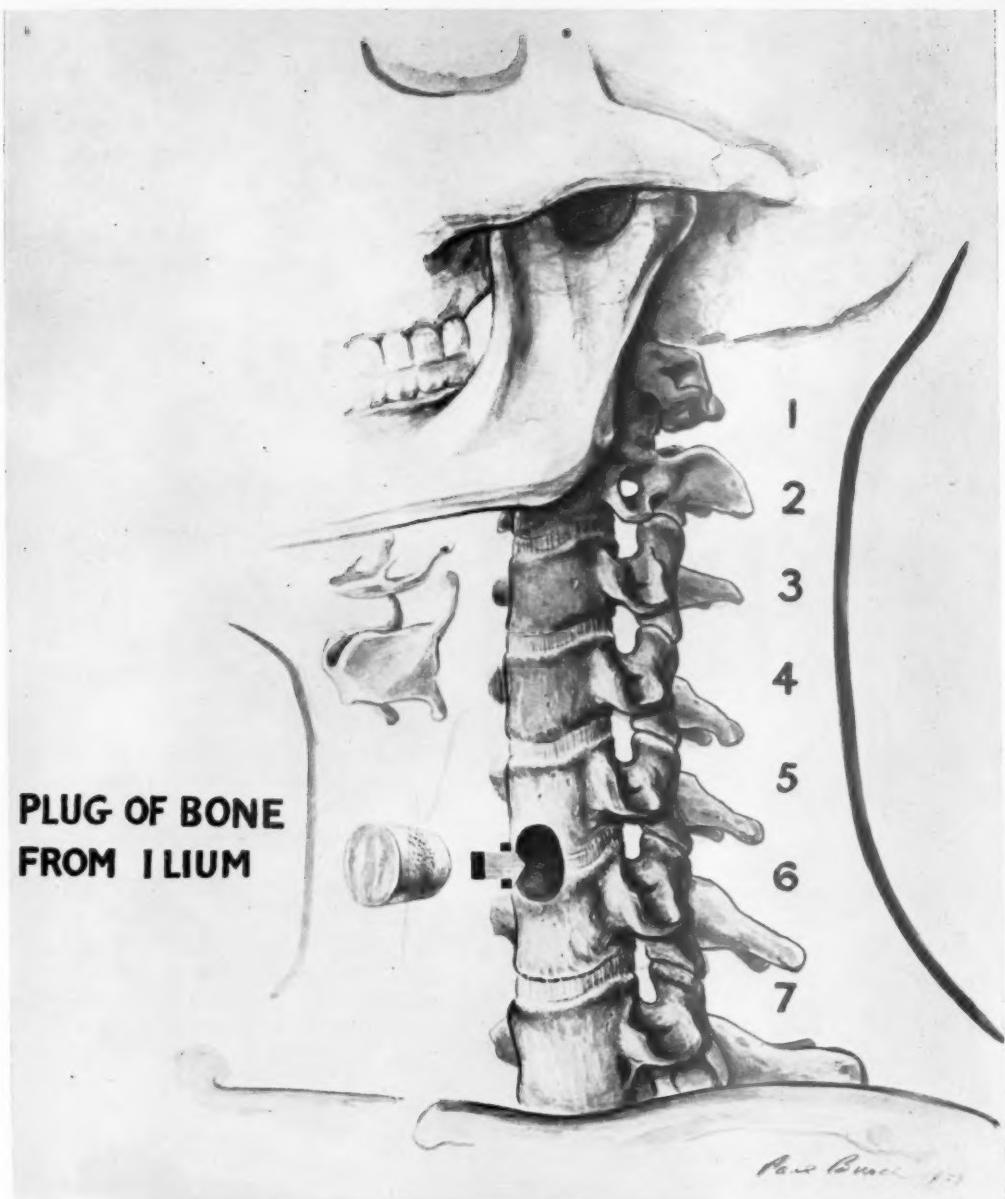
Fig. 1

out cutting one or more spinal nerve roots.

Even after adequate exposure of the lesion and removal of the protruding disc, other operative hazards are numerous and the chance of damage to the neural structures is increased. The disc space must be explored for additional fragments that must be removed; the lateral or medial osteophytes that may have developed around the ruptured disc must usually be chipped away by hammer and chisel. Deep incisions made posteriorly in the neck result in muscle and proprioceptive disabilities that cause patients to be dizzy and unsteady for months and often to walk with such a wide base that they may require a cane. The period of rehabilitation is long.

A review of the literature will reveal no

reference to an anterior approach to the problem of ruptured cervical intervertebral disc until the 1958 publications of Smith and Robinson<sup>7</sup>, Cloward<sup>8</sup> and Dereymaeker and Mulier<sup>9-10</sup>. These surgeons had determined that most of the cervical portion of the vertebral column could be easily reached surgically by the anterior approach and reported their experience. Smith and Robinson and Dereymaeker and Mulier had developed an anterior approach primarily for removal of the disc and interbody fusion. The fusion was brought about by placing a plug of bone between the intervertebral bodies. Cloward, however, not only designed an anterior procedure for removal of the ruptured disc and interbody fusion, but also added the refinement of nerve root and spinal cord decom-



*Fig. 2*

pression by removal of the encroaching osteophytes (Fig. 2). After removing the disc and making a half-inch drill hole through the disc space, he proceeded with a small angulated curet to remove whatever osteophytes were at the midline posteriorly and to extricate the osteophytes postero-laterally in the

nerve foraminae. In order to secure firm fusion and to prevent slipping, he used a round plug of bone, large in relation to the size of the vertebral bodies being fused.

The chief advantage of the Cloward procedure over the Smith and Robinson and the Deremaeker and Mulier procedures is that

the spinal cord and nerve roots are decompressed after the removal of the ruptured disc.

The anterior procedure in itself has many other advantages over posterior laminectomy. The possibility of damage to neural structures is lessened by decompression of the spinal cord and nerve roots by extraction of the compressing discs and the osteophytes, a procedure that avoids excessive handling of the spinal nerve roots and the spinal cord. Disturbances of balance from major surgery in the back of the neck do not result. The discomfort caused by the dysphagia and tracheitis following anterior excision is usually short-lived. Patients often wake up from the anesthetic without pain. With the decrease in neck pain and muscle spasm, mobility of the neck is usually increased in spite of the fusion. At operation, inspection of the bone plug during full range of motion of the head and neck reveals the two vertebrae so solidly locked together that a neck brace or other support is seldom needed. Patients are usually allowed up on the second day and are often released from the hospital on the fourth or fifth day to complete their convalescence at home.

In contrast to posterior laminectomy for removal of ruptured cervical intervertebral disc, the anterior approach has these advantages:

1. Ruptured disc or discs and osteophytes can be extracted from neural structures.

2. Hazards of handling neural structures are reduced.

3. Neural injury resulting from electrocoagulation of epidural veins is avoided.

4. Complete removal of the osteophytes is simplified.

5. Interbody fusion is accomplished.

6. Disturbances of gait and balance are avoided.

7. The period of rehabilitation is shortened. •

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#### Make your reservations now

Members of your Scientific Program Committee have worked hard to prepare a program for the Annual Session meeting which they believe will be a stimulating experience to every physician in our Society. This is not the usual scientific program that is presented in varying form for many years to keep us abreast of clinical medicine. Our perspective of modern medicine is indeed narrow if we are not aware of the significant trends in basic research. This is the area which we wish to emphasize at the meeting in Estes Park. The committee has been successful in obtaining the nation's leading research scientists in the fields of electronmicroscopy, biochemistry and genetics, and metabolism. This program will present to you the opportunity to get a first-hand report of the work that is being accomplished and the amazing results that are being obtained in these fields. This information will be presented by the men who are actually engaged in the research programs, and you will have a chance in

the panel discussions to ask questions that may be of particular interest to you. Don't let the scientific content scare you away. These men are all able to present this information in a manner that we can understand and appreciate.

Set aside the dates of September 14 to 17 for the Annual Session meeting in Estes Park. Make your reservations early. We believe that hotel and motel accommodations will be difficult to get if you wait too long.

#### National Cancer Conference

Minneapolis will be the site of the Fourth National Cancer Conference on September 13-15, 1960. Theme of the conference, which is sponsored by the American Cancer Society and the National Cancer Institute, will be, "Changing Concepts Concerning Cancer."

Further information may be obtained from: Medical Affairs Department, American Cancer Society, 521 West 57 Street, New York 19, N. Y.

# Cancer of the stomach\*

Walter L. Palmer, M.D., Chicago

*Diagnosis is not difficult,  
but procedures are time-consuming  
and uncomfortable.  
Surgery is our only present answer.  
Over-all five-year survival  
is still under 10 per cent.*

DR. ROBERT SAWYER in the April, 1959, issue of the Rocky Mountain Medical Journal gave a comprehensive review of the problem of gastric cancer. In this supplementary paper I shall emphasize aspects which seem to me to be of particular interest.

## Etiology

While we appear to be far from an answer to the question of the cause of gastric cancer, there are a number of tantalizing clues. The geographic variations are most puzzling. Table 1, taken from the exhaustive paper by Dr. Charles Flood of New York, shows a completely baffling variation in the incidence in both males and females, with a frequency in the Japanese four or five times that in the Caucasian population of the United States. Finland and Iceland approach the Japanese rate. Steiner found no particular difference in the frequency of gastric cancer in Caucasoids, Negroids and Mexicans in Los Angeles, but he did find higher levels in the Japanese. This higher level in Japanese has been found in Hawaii also. It is estimated further that the average age of appearance of gastric cancer in Japan is at least a decade earlier than it is in the white population of the United States. At the other end of the scale is the report by Bonne that

"there is a nearly total absence of gastric cancer among the native Malay population of Java." These geographical or racial variations are completely unexplained.

Another strange fact is the decrease in the incidence of gastric cancer in both men and women in the United States over the past 25 years, as shown in the statistics compiled by Dr. Hammond (Fig. 1, 2). During this period the incidence of certain cancers has remained stationary, whereas others, especially pulmonary, have increased. This changing incidence has been observed in Western Europe as well as in the United States. Tazaki, indeed, in a beautiful paper presented last year, gave figures collected in Japan from 1915 to 1954 showing a gradual shift in the relative frequency of gastric cancer from 49 per cent of all cancer in 1921 to 21 per cent in 1954 (Table 2). The explanation of this worldwide decrease in the inci-

TABLE 1  
*Mortality from cancer of the stomach  
in different countries\**

Country	Period	"Average" death rate per 100,000 (Ages 35-74)	
		Male	Female
Japan .....	1951	200	112
Finland .....	1951-3	216	120
Iceland .....	1940-9	209	130
Norway .....	1952	131	67
Netherlands .....	1950-2	116	70
Denmark .....	1951-2	96	56
France .....	1952	94	51
England, Wales .....	1951	94	48
Sweden .....	1952	90	59
Israel .....	1951	86	58
U.S.A. (nonwhites) .....	1952	76	33
Canada .....	1950	75	38
Venezuela .....	1950	65	44
U.S.A. (whites) .....	1952	48	24

\*Flood, Charles A.: Ann. Int. Med., 48:920 (1958).

*Presented July 23, 1959, at the 13th Annual Rocky Mountain Cancer Conference, Denver. Dr. Palmer is the Richard T. Crane Professor of Medicine, University of Chicago. A list of 22 references has not been included because of space limitations.*

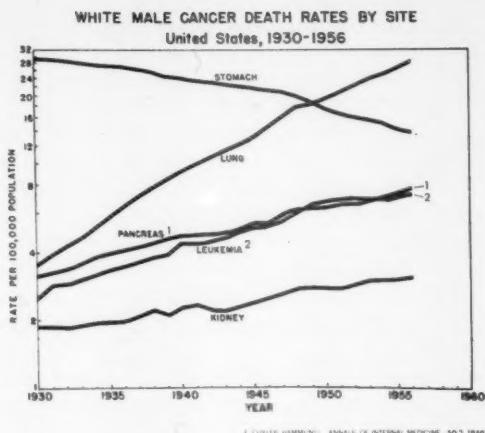


Fig. 1. Decreasing incidence of gastric cancer (white males).

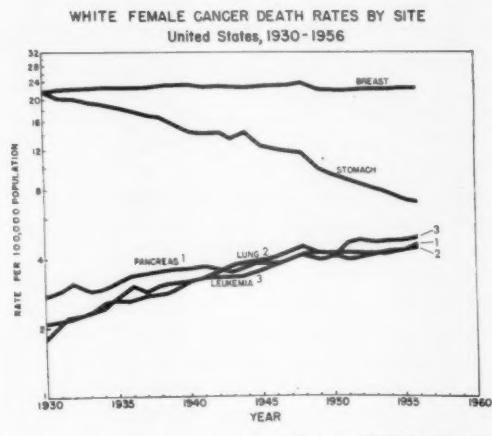


Fig. 2. Decreasing incidence of gastric cancer (white females).

TABLE 2		
Gastric cancer in Japan (autopsy)*		
Author	Year	Per cent of all cancers
Ishibashi, Takatsu	1915	44.0
Harada	1921	48.89
Tanaka	1934	39.7
Koochino	1939	35.7
Abe	1948	33.08
Yoshida, Miyake	1954	21.1

\*Tazaki, Yuzo: Clinical Aspects of Gastric Carcinoma in Japan. 1958.

dence of gastric cancer is also completely unknown.

The question of the role of heredity is now as uncertain as it was in 1938 when Konjetzny concluded that it was not possible to say that cancer was inherited, although a certain general or organ predisposition might be transmitted. Graham and Lilienfeld in a recent critical and exhaustive review reached the conclusion that the results do "suggest that gastric cancer is concentrated in some families more than in others."

The progressive increase in the incidence of gastric cancer with the advancing decades of life (Fig. 3) has been recognized for many years, as has the greater susceptibility of males over females of approximately two to one, but neither of these phenomena has been explained. The higher incidence of gastric

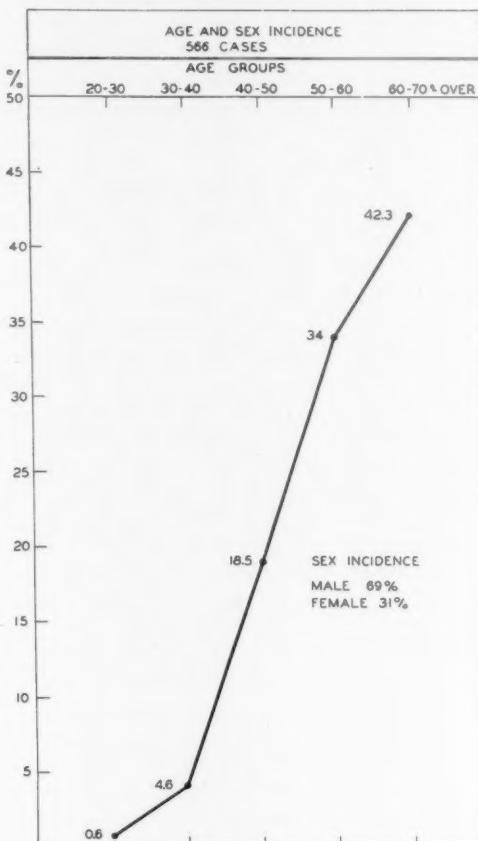


Fig. 3. Progressive increase in incidence of gastric cancer with age.

cancer in patients with pernicious anemia has been confirmed again by Zamcheck and his associates, being 6.5 per cent in one series of 108 autopsies and 11.9 per cent in another series of 59 autopsies. This fact is quite in accord with the concept espoused so ably by Konjetzny of gastritis as a precursor of cancer. In Konjetzny's view, cancer never develops in a normal mucosa. Benign gastric ulcer likewise was regarded by him as a precursor of cancer and for the same reason, i.e., it arose in an abnormal "gastritic" mucosa.

As yet, the experimental laboratory has shed relatively little light on gastric cancer, although various workers have reported the induction of tumors in mice or rats. The problem is a difficult one, but there can be no doubt of the production of metastasizing adenocarcinomas of the pyloric stomach in mice by Stewart and Lorenz using carcinogenic hydrocarbons. Other animals thus far have proved refractory to this and other carcinogens. No one has yet succeeded in demonstrating the roles of viruses or of hormones in gastric cancer.

#### *Diagnosis*

From the practical point of view, the first problem is the diagnosis of gastric neoplasm. The surgeons naturally press for early diagnosis. This is understandable because thus far the only form of therapy which can be said to be of definitive or curative value is removal of the tumor. The difficulties in early diagnosis are numerous. The disease is usually insidious in onset, and the patient does not appreciate the significance of the few symptoms present. Consequently, there is often a delay of several months before he consults a physician. The physician's threshold of suspicion for cancer may be high or low; it is influenced considerably by the symptoms described by the patient and by the patient's attitude toward them. If the symptoms are vague and of short duration, and if the physical examination is negative, the patient and the physician may be reluctant to make further studies, hoping that with diet and medication the symptoms will disappear. The question of the completeness of the examination or the decision of how far one should go in the examination of the

patient is difficult and calls for great care and discretion on the part of the physician. Certainly the routine blood count should be done. Examination of the feces for occult blood is a nuisance, but it is worthwhile because some blood will be found in more than half—probably in 80 per cent—of the patients with gastric cancer; the statistics vary. In my opinion a gastric analysis is also worthwhile, although gastric cancer can occur with almost any secretory pattern; the higher the secretion of acid, the less the likelihood of cancer.

The most universally employed and, on the whole, the most useful diagnostic procedure is the roentgenologic examination. In spite of the recent furor over radiation hazards, it is now becoming clear that diagnostic studies involve a minimal amount of radiation and are thoroughly justifiable. Consequently, the x-ray examination should be carried out early in all patients suspected of harboring a neoplasm. The method is so satisfactory that doctors and patients alike tend to fall into the habit of considering it perfect, which it is not. Like all procedures, the results depend to some extent upon the skill and experience of the examiner and upon his equipment. The reliability of examination also depends to some extent upon the co-operation of the patient and upon his anatomic build. Thus, in a study made by Dr. Klotz of patients later proved to have gastric cancer, 30 per cent of the x-ray examinations were reported as indecisive, although eventually a positive diagnosis was made before operation in 88 per cent. Consequently, a negative roentgenologic report is not entirely reliable and an indecisive one certainly is not. The gastroscopic examination disclosed the lesion in 80 per cent of this group of patients. The combination of the two procedures reduced the diagnostic error to 6 per cent.

In our hands the most accurate and also the most time consuming diagnostic procedure is that of exfoliative cytology. The method is too laborious to be used for screening; it has to be reserved for selected patients. Table 3 shows that in 740 patients without gastric cancer, the incidence of "false positives" was approximately half of 1 per cent, whereas in 131 patients with cancer, the

TABLE 3  
*Gastric cytology*

740 patients without cancer	
Cytology negative .....	736
Cytology positive .....	4 (error)
131 patients with cancer	
Cytology positive .....	125
Cytology negative .....	6 (error)

TABLE 4  
*X-ray vs. cytology*  
(131 proven gastric cancers)

	X-ray		Cytology	
	Number	Per cent	Number	Per cent
Cancer .....	81	61	125	95
Inconclusive .....	27	20	0	—
No cancer .....	23	19	6	5

incidence of "false negatives" was 5 per cent.

In the eyes of the cytologist the method is much more discriminating than the roentgenologic examination, although it is only fair to say that in Table 4 the x-ray figures are based upon the initial impression of the radiologist.

A current study by Strandjord and his associates in our Department of Radiology has shown that of 282 cases of proved gastric cancer, the correct diagnosis was made radiologically in 78 per cent, an inconclusive diagnosis was made in 6 per cent, and an incorrect diagnosis was made in 16 per cent. Twenty-seven of these 282 cases, almost 10 per cent, simulated benign ulcer radiologically in that no mass was present, but the radiologists made the correct diagnosis of cancer in 14 of the 27.

The differentiation of benign and malignant ulcer has been and still is a difficult and controversial subject. We have contended that even without the assistance of exfoliative cytology, but by utilizing all of the diagnostic aids, the error should not exceed 5 per cent. With the aid of the cytologic examination, the error should be reduced still further. In a sense, no error is acceptable, but we think that the present diagnostic error is within the range of the mortality from partial gastrectomy.

Exploratory laparotomy is not as satisfac-

tory as it has been presumed to be. The difficulty in the differentiation between benign and malignant ulcer is fully as great at the operating table as it is preoperatively. The difficulty in the differentiation between large gastric folds and infiltrative tumor is attested by the number of partial or total gastrectomies performed for the former condition—benign giant rugal folds. Small ulcerating cancers and indeed larger soft polypoid cancers may be missed at operation.

### Therapy

In the treatment of gastric cancer two things stand out: (1) The only definitive therapy at the present time is surgical removal of the tumor; and (2) there seems to be little ground for hope that surgery will ever be able to cure more than a relatively small per cent of the patients afflicted with this disease. The innumerable reports are discouraging. Thus Raffl and Kelley obtained a five-year survival of only 6.6 per cent in patients subjected to resection and a crude over-all survival rate of 2.0 per cent for all patients admitted to the hospital. McNeer and his associates report a five-year survival of 25 per cent of patients undergoing "curative operation." The absolute five-year survival in the decade 1941-50 was 9.1 per cent.

Table 5 shows the mean five-year survival in the 462 patients treated at the University of Chicago in the period from 1946 to 1955, inclusive. None of the patients treated palli-

TABLE 5  
*Cancer of the stomach*  
1946-1955, inclusive

Treatment	No. of patients	5-year survival Number	5-year survival Per cent
<b>Definitive surgery</b>			
Extent of tumor			
Localized .....	54	23	43
Distant spread (regional lymph node) .....	187	17	9
<b>TOTAL</b> .....	241	40	17
<b>Palliative</b>			
Extent of tumor			
Distant spread .....	221	0	0
<b>TOTAL</b> .....	462	40	9

atively, whether by surgery or not, survived five years. In the small group of 54 patients in whom the tumor at operation was found to be localized, the five-year survival was 43 per cent, as compared with 9 per cent for those with lymph node involvement.

In gastric cancer, as indeed in all cancer, there are phenomenal differences in the rate of growth. Some malignant neoplasms are so slow in their evolution that they are almost benign tumors; others are acute, rapidly spreading, explosive invasions of the body with cancer cells. The morphologic differences in these lesions have been studied carefully, but the explanation of the variation is not apparent. As MacDonald and Kotin have phrased it: "Biologic predeterminism, rather than the time or type of surgical treatment, governs (the) end results in gastric carcinoma." The basic factors in "biologic predeterminism" are almost completely unknown.

### Summary

I have endeavored to present a few of the puzzling facets of the incidence of gastric cancer. The diagnostic problems are not great, provided the necessary facilities are available and the patients are willing to endure the time consuming and uncomfortable procedures required. The over-all accuracy of these procedures is high. Surgical removal of the tumor provides the only effective therapy; its success depends largely upon the type of cancer present. If the lesion is localized, approximately half of the patients will survive partial resection of the stomach five years or longer. Unfortunately, the over-all five-year survival rate is still under 10 per cent. Our best hope for the future seems to lie in some nonsurgical method to kill cancer cells, but thus far there is nothing to suggest how or when such a therapy will be found for gastric cancer. \*

## Uterine prolapse in the young nulliparous female\*

*A possible contributing factor*

Donald W. deCarle, M.D., San Francisco, California

***Two case reports illustrate the fact  
that the anthropoid pelvis may be  
a causative factor in uterine prolapse.***

IN 1947, H. O. JONES, OF CHICAGO, presented a comprehensive discussion on the subject of uterine prolapse. In it, he dealt primarily with the multiple problems associated with uterine prolapse in general but emphasized those related to such a complication in the young nulliparous woman. In order to stress the latter, he presented the case history of

a young musical comedy star who did acrobatic dancing. A part of the dance consisted of being tossed over a high wall near the back of the stage. During one of these particularly strenuous dances, she was suddenly conscious of something protruding from her vaginal orifice. On examination, this proved to be a completely prolapsed uterus.

According to Jones, the immediate cause of this condition was the trauma resulting from being repeatedly tossed over the wall. The imponderables in this case, in his opinion, however, were the factors which allowed a procidentia to occur in this particular young lady. What was equally disturbing was the selection of an appropriate operative pro-

\*Presented before the Ogden Surgical Society meeting, May 20, 1959.

cedure which would satisfactorily replace this young lady's uterus so that she might resume her work with a minimum loss of time. Still more important was the selection of a procedure which would in no way interfere with normal intercourse or a succeeding pregnancy.

Difficulties surrounding this problem and the high percentage of indifferent operative results in patients with this complication were, in the opinion of this operator, due to failure in finding and properly evaluating all the initiating factors relating to prolapsus uteri.

#### *Investigation*

Impressed by the work of this author and because of the general failure to improve the treatment of these patients in a substantial number of those operated, further investigation was deemed justified. No actual effort to invade this highly controversial field was made, however, until some five years ago.

It was the original intent of this investigation to discover a more intelligent approach, if possible, to the problem of treatment in an effort to increase the number of patients with uterine prolapse who could be successfully operated. As a means of accomplishing this end, it was thought advisable first to review and wherever possible to re-evaluate all factors known to date which could contribute in any way to this condition, especially in the young nulliparous female. In the second place, it was felt equally essential to search for any further etiologic agents which could conceivably have been previously overlooked.

With these objectives in view and on consideration of the first of these problems through a cursory review of the voluminous literature relative to all and sundry phases of the subject, one is impressed with the lack of unanimity of opinions both as to the underlying anatomic as well as to the causative factors of uterine prolapse.

It was only at the end of the last century that the controversy in regard to the various pelvic structures relative to the etiology of uterine prolapse was supposedly definitely settled. This was accomplished mainly through the efforts of two investigators in the field, namely Watkins and Wertheim. It

was their opinion that the only tissue structures believed to be of any marked value in relation to support of the pelvic organs, namely fascial formations and the pelvic musculature, were of equal importance.

#### *Uterine ligaments*

Since that time, however, the entire subject of anatomy and tissue structure as it relates to uterine prolapse has again become controversial. As an example, the relative value of the so-called ligaments and other fascial structures has again been challenged. Their importance to pelvic support, according to certain of the authors, has been erroneously based upon three concepts. The first of these maintained the existence of sheath-like condensations around the various pelvic organs. According to the investigations, chiefly of Bell, Goff, Koster, Lisa, Ricci, Thom and Kron, these condensations are not to be found. As to the second of these concepts, Koster, Goff and Berglas, and Rubin, among others, contend they have satisfactorily proved that the so-called ligaments of the pelvis do not contain similarly described concentrations of connective tissue. Finally, this same group of investigators state that the last of these concepts which maintained the fixation of the fascial connective tissue to the boney pelvic walls has, in their opinion, never been satisfactorily proved.

Still another example is the result of the work of Berglas and Rubin. By an x-ray procedure known to them as myography, they believe that they have shown conclusively the greater importance of the musculo-pelvic floor. This, in their opinion, is particularly true of the levator muscles referred to by them as the levator plate. It is their contention that potential prolapse depends primarily upon any change in the so-called normal anatomic relationship between the uterus and this levator plate.

Finally, as early as 1917, attention was first diverted by Finley from the fascial and muscular structures as the exclusive sources of factors contributing to procidentia. Since then, it has become a more or less generally accepted opinion that prolapse, especially in the nulliparous woman, can also be associated with various boney deficiencies of the pelvis and especially those of the lower lumbar

and/or the upper sacral spine. These may include all lesions from the mildest, such as spina bifida occulta and meningocele, to the more severe, associated with extrophy of the bladder.

#### *Other structures*

Thus, to date, it would seem that all supportive structures, namely muscular, fascial, and boney, are all involved in varying degrees in the mechanism contributing to the failure of adequate support of the pelvic organs.

What is even more essential to the solution of this problem is the recognition and proper evaluation of all factors and forces which have sufficiently modified these same tissue structures to the point that they no longer give proper support to the pelvic organs in general and the uterus in particular. As recently as 1955, Stearns, among the various workers in this field, stated that there were multiple agents of equal importance involved as causes of this condition. The three most common, in his opinion, were, first, constitutionally inadequate supporting tissue; second, age with its attending trophic changes; and third, trauma, especially that of labor. To these Jacobi adds still a fourth, namely nutritional deficiencies.

#### *Constitutional predisposition*

As opposed to the opinion of these two, as well as that of many other investigators in this field, von Graff believes there is only one single, underlying causative factor in the etiology of uterine prolapse. In the discussion of this subject, published in 1933, he states that procidentia, whenever it occurs, depends primarily on what he calls "individual constitutional disposition." This he qualifies as a functional inefficiency of the mesodermal structures whose inherent "constitution" is "definitely determined for each individual at the moment of fusion of her parental germinal cells." This, in other words, accounts for the marked variation in behavior in different individuals in the presence of the same identical physiologic event. For example, von Graff points to the recognized fact that, as opposed to the nulliparous woman with procidentia, there are numerous women who may have had up to 10 or even

more deliveries with no evidence of uterine descensus.

According to this theory of von Graff, all other causative factors as cited by Stearns, Jacobi and others, such as trauma, age, and nutritional deficiencies, are initiating agents only of uterine prolapse. They favor the development of descensus exclusively in those individuals who possess such functional inefficiency of the mesodermal structures.

Based upon this reasoning, von Graff divides all women with uterine prolapse into four main groups according to age and to intensity of this deficiency. The first of these groups and the one of primary interest in this discussion includes virgins and all other nulliparous women with prolapse. Among these, he recognizes certain stigma as evidence of mesodermal inefficiency. They include spina bifida occulta along with displacements of the uterus, and various manifestations of enteroptosis. Also included in this group are certain structural types identified by him.

Of all the theories offered to date as to the factors underlying uterine prolapse, that of von Graff, based upon congenital inadequacy, would seem to offer the most logical explanation of this condition, especially as applied to the nulliparous female.

As previously stated, it became the second objective of this investigation to search for any other contributory agents which might possibly have been previously overlooked. It was hoped by this means also to discover further evidence which might be found helpful in either proving or disproving von Graff's theory of mesodermal incompetence. This study, as will become apparent, is still in its incipiency. It must, therefore, be considered in the nature of a preliminary report only.

Although as a result of Finley's discovery, x-ray of the lower spine had become an established procedure in the routine study of uterine prolapse, especially in the nulliparous woman, a comparative few had been shown to have any evidence of boney deflection of this type. It was decided, therefore, to study the boney structure of the pelvis in its entirety.

The initial investigation was a complete x-ray study of the boney pelvis of two patients who presented unusual problems.

Their case histories are herewith given in detail.

#### CASE REPORTS

Case 1: Miss M. A., a nulliparous young woman aged 29, was first seen because of pelvic discomfort. Physical examination was essentially negative, except that the patient herself presented a picture of a female with general boney structure definitely larger than average. Examination of the pelvis showed an ovarian cyst with a freely movable 3° retroversion of the fundus and general pelvic relaxation. After a period of observation of some 18 months, surgery was decided upon because of enlargement of the cyst with symptoms suggestive of torsion of the pedicle. Unfortunately, because of the pelvic symptoms, uterine suspension was attempted at the time of surgery. It was noted that the pelvis was unusually large with extra long, rudimentary sacro-uterine ligaments. Imbrication of the latter was done, however, along with a modified Gilliam suspension. Within two months of the operation, all pelvic symptoms had returned. A recurrence of the retroversion with evidence of marked descensus was found. X-ray at this time showed no occult spina bifida. Study of the pelvis itself, however, showed a large anthropoid type of pelvis. A subsequent Manchester type of procedure with amputation of a markedly elongated cervix was carried out. All symptoms and findings again returned within a few months after this second operation.

Case 2: Mrs. A. J., a nulliparous married woman, when first seen at the age of 26, complained of some vaginal discomfort. A markedly elongated cervix with a freely movable retroverted uterus with some evidence of prolapse was found on vaginal examination. This patient conceived shortly thereafter and delivered at term without difficulty. Although the cervix was found to protrude and descensus was more marked, surgery was deferred. Following a second term pregnancy, when the prolapse was increased and because of an active chest lesion which precluded more pregnancies, a vaginal hysterectomy was done. The patient was then 31 years of age. X-ray of this pelvis also showed a type of pelvis similar to that found in the first patient. (Her rather large skeletal structure, known to Caldwell and his group as the anthropoid type, was also noted at this time.)

Following the x-ray study of these two patients, it was decided to investigate all nulliparous patients seen by us with uterine prolapse, of 39 years or younger, and all others whose history of the onset of this complication preceded this age. This study consisted primarily of pelvic x-ray whenever possible, otherwise in clinical examination of the pelvis in general and the boney pelvis in particular.

The case histories of all nulliparous women treated for uterine prolapse in the past 10 years at Children's Hospital were also studied. There were some 53 in all, out of which only 10 were of 39 years or younger. Since then, studies of two more patients have been added.

To date, seven patients by x-ray and probably two more out of the 14, were found to present evidence of the existence of the anthropoid pelvis. This pelvis, with its unusually large inlet, especially the antero-posterior dimensions and the presence of the straight sacrum, suggests definite inherent weakness of the pelvic sling. Members of the x-ray department at Children's Hospital frequently refer to the woman with this type of pelvis as "Fanny Open Bottom." Recognition of women with such a type of pelvis, even in the absence of an x-ray, is possible. The true anthropoid type of female, as described by Caldwell and Malloy, is usually taller than average but may at times have short legs with a proportionally large torso.

#### Discussion

The question naturally arises as to the relative value of such a study to the over-all solution of the problem of uterine prolapse in general and in the young nullipara in particular. One can only say that the larger size and greater depth of the pelvis associated with uterine prolapse has been previously noted at various times in the literature. However, to our knowledge, no attempt has been made thus far to establish any particular type of pelvis as predominant in these women prone to prolapse. In view of our findings, so far, however, the possibility that one type in particular, as opposed to all others, strongly suggests itself. This particular pelvis is referred to by Caldwell and Malloy as the anthropoid pelvis; Murphy as "infantile pelvis," and previously by Baudoloque as the "assimilation pelvis." All imply faulty development; all imply faulty mesodermal structure, as suggested by von Graff.

In consideration of any clinical significance of such a finding, it should be noted that treatment of any complication of this kind can be divided into (1) preventive, (2) conservative, and (3) definitive.

Regarding the question of preventive

treatment in gynecology in general, Schuman in a recent talk stated that "in gynecology, we are still entirely too surgically minded. We can cure disease rather than attempt to prevent it." He then concludes, "I believe that it may be said that should the gynecologist devote himself with great assiduity to the prevention of the occurrence of lesions of the pelvic organs, his work will be crowned with success."

#### *Preventive treatment*

Thus, the preventive forms of treatment in this, as in any other gynecologic condition, should assume a new importance. It is difficult, however, with our present knowledge, to find any application of this or any other positive finding of any specific value in the preventive treatment of uterine prolapse in the nulliparous woman. However, in our opinion, it does have a definite application in preventive treatment of this condition in general, especially in the field of obstetrics. It is particularly within the province of the obstetrician to choose those methods of procedure in delivery which are least likely to further weaken supportive structures which are already inherently defective. This applies to any pelvis in which an ex-trophy of the bladder has occurred with its associated boney defects. It also applies to any pelvis with other associated boney defects such as meningocele, spina bifida, or spina bifida occulta. Finally, in our opinion, it also applies to patients in whom an anthropoid type of pelvis may be found.

#### *Surgical treatment*

Because it is of little value to any group primarily interested in surgery, the second or conservative forms of treatment will not be considered here. The question finally arises as to any importance such an investigation might have in the definitive or surgical treatment of uterine prolapse. Until that day which Schuman visualizes when and if all such gynecologic complications can be entirely prevented, surgery must play an important role in their correction. Thus, for

an indefinite period of time to come, any factors found which could be of added help in approaching the problem of prolapse, especially in the young nulliparous woman, can be of distant importance.

To be of value in this latter group, however, any operative procedure must return the uterus to its normal position. It must not interfere with normal intercourse. Even more important, it must in no way handicap or prevent a succeeding pregnancy, should that occur.

This eliminates a vast majority of the 300 or more surgical procedures described in the past in the treatment of uterine prolapse. Assuming the large anthropoid pelvis to be present in at least a definite percentage of these patients, the presence of the elongated sling and the resulting rudimentary sacro-uterine and round ligaments could conceivably account for failure in certain of these procedures. This is especially true of those which depend upon these same ligaments.

It was not until 1914 that the work of Fothergill, along with that of Donald in Manchester, dispelled the theory that a cure for uterine prolapse could only be accomplished by narrowing the vagina. This followed closely upon the discovery of Machenrodt of the ligaments which bear his name. It is utilization of these ligaments which forms the basis for the Manchester or Donald-Fothergill-Shaw operation, described at that time.

It would seem that the very fact that this same operation has survived even to the present proves it to be the one procedure which has best corrected uterine prolapse in the largest number of nulliparous patients to date. However, this fact combined with the substantial percentage of failures in the operative treatment of this condition, even in the most capable hands, would definitely imply that there are other factors which contribute to the cause of procidentia uteri which as yet remain undetected. Until that time when they are discovered and properly evaluated, such an investigation as is hereinwith presented would seem to be definitely justified. •

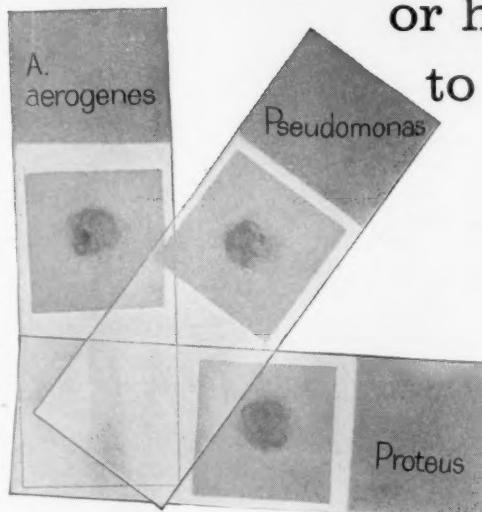
# DECLOMYCIN® NOTES:

Demethylchlorotetracycline Lederle

## pathogen sensitivity

In addition to the expected broad-spectrum range of effectiveness, DECLOMYCIN has demonstrated activity against strains of *Pseudomonas*, *Proteus* and *A. aerogenes*<sup>1-4</sup> unresponsive refractory antibiotics.

or highly  
to other



1. Finland, M.; Hirsch, H. A., and Kunin, C. M.: Read at Seventh Annual Antibiotics Symposium, Washington, D. C., November 5, 1959. 2. Hirsch, H. A.; Kunin, C. M., and Finland, M.: *München. med. Wochenschr.* To be published. 3. Roberts, M. S.; Seneca, H., and Lattimer, J. K.: Read at Seventh Annual Antibiotics Symposium, Washington, D. C., November 5, 1959. 4. Vineyard, J. P.; Hogan, J., and Sanford, J. P.: *Ibid.*

Capsules, 150 mg. — Pediatric Drops, 60 mg./cc. — New Syrup, cherry-flavored, 75 mg./5 cc. tsp., in 2 fl. oz. bottle — 3-6 mg. per lb. daily in four divided doses.

GREATER ACTIVITY...FAR LESS ANTIBIOTIC...SUSTAINED-PEAK CONTROL... "EXTRA-DAY" PROTECTION AGAINST RELAPSE  
LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

# 14th Annual Rocky Mountain

# Cancer Conference

No Registration Fee  
Approved for 10 Hours A.A.G.P. Category I Credit

Tuesday, July 19

Afternoon

2:00-5:00—Registration

## PROGRAM

Wednesday, July 20

Morning

8:00-4:00—Registration

J. Robert Spencer, M.D., Denver, Chairman of Conference

9:00—Addresses of Welcome

Cyrus W. Anderson, M.D., Denver, President-elect, Colorado State Medical Society

Lanning E. Likes, M.D., Lamar, President, Colorado Division, American Cancer Society, Inc.

Greetings from the American Cancer Society, Inc.  
Warren H. Cole, M.D., Chicago, President,  
American Cancer Society, Inc.

**Symposium:** Skin Cancer—Recognition and Treatment

Moderator, Osgoode S. Philpott, M.D., Denver

Participants: R. Lee Clark, Jr., M.D., Surgeon; A. James French, M.D., Pathologist; Roy L. Kile, M.D., Dermatologist; Wendell G. Scott, M.D., Radiologist.

Question and answer period

12:00 Noon—Round Table Luncheon

Presiding, A. E. Lubchenco, M.D., Denver

Afternoon

Presiding, Valentin E. Wohlauer, M.D., Brush

2:00—"Benign and Malignant Tumors of Tracheobronchial Tree," H. W. Schmidt, M.D., Rochester, Minn.

2:30—"Peculiarities of Skin Cancer," Roy L. Kile, M.D., Cincinnati, Ohio

3:00—"Newer Concepts of Gastric Ulcer and Cancer," Wendell G. Scott, M.D., St. Louis, Mo.

3:30—"Benign Tumors of the Esophagus," H. W. Schmidt, M.D., Rochester, Minn.

*Evening*

Presiding, Lanning E. Likes, M.D., Lamar

6:30—Cocktail Hour

7:30—Dinner

Presentation of Awards, N. Paul Isbell, M.D., Denver

Speaker, Hon. Jennings Randolph, United States Senator, West Virginia, "Take Time for Laughter."

Thursday, July 21

Morning

8:00-12:00 noon—Registration

Presiding, J. Robert Spencer, M.D., Denver

9:00—Greetings from the American Medical Association

E. Vincent Askey, M.D., Los Angeles, President, American Medical Association

**Symposium:** Thyroid Lumps

Moderator, Kenneth C. Sawyer, M.D., Denver

Participants: R. Lee Clark, Jr., M.D., Surgeon; A. James French, M.D., Pathologist; Wendell G. Scott, M.D., Radiologist; Willard P. VanderLaan, M.D., Internist.

Question and answer period

12:00 Noon—Round Table Luncheon

Presiding, Ervin A. Hinds, M.D., Denver

Afternoon

Presiding, William A. H. Rettberg, M.D., Denver

2:00—"Salivary Gland Tumors," A. James French, M.D., Ann Arbor, Mich.

2:30—"Economics of Cancer Detection and Treatment," R. Lee Clark, Jr., M.D., Houston, Texas

3:00—"A Critique of Adrenalectomy for Cancer," W. P. VanderLaan, M.D., La Jolla, Calif.

3:30—"Clinical Significance of Dysphagia," H. W. Schmidt, M.D., Rochester, Minn.

Adjourn

## *Banquet Speaker*



Hon. Jennings Randolph,  
United States Senator,  
West Virginia

## Denver, July 20-21

Headquarters Hotel for the Conference is the Denver Hilton. A block of rooms has been reserved for physicians and their families. To make your reservation, write to the Denver Hilton, Denver 2, Colo.

## *Guest Speakers*



E. Vincent Askey, M.D.  
Los Angeles, President,  
American Medical Association



R. Lee Clark, Jr., M.D.  
Surgeon, Houston, Director and  
Surgeon-in-Chief,  
University of Texas  
M.D. Anderson Hospital &  
Tumor Institute



Warren H. Cole, M.D.  
Chicago, President,  
American Cancer Society, Inc.



A. James French, M.D.  
Pathologist, Ann Arbor,  
University of Michigan,  
Chairman,  
Department of Pathology



Roy L. Kile, M.D.  
Dermatologist, Associate  
Professor of Dermatology,  
University of Cincinnati  
College of Medicine



H. W. Schmidt, M.D.,  
Internist, Rochester,  
Head, Section of Medicine,  
Mayo Clinic

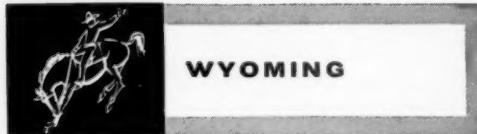


Wendell G. Scott, M.D.,  
Radiologist, St. Louis,  
Professor of Clinical Radiology,  
Washington University



Willard P. VanderLaan, M.D.  
Internist, La Jolla, Head,  
Department of Endocrinology,  
Scripps Clinic and Research  
Foundation

## ORGANIZATION



### Obituary

#### EDWARD S. LAUZER

Dr. Edward S. Lauzer, 78, one of the outstanding physicians and surgeons in Rock Springs for 44 years, died Sunday, May 1, in the Sweetwater County Memorial Hospital.

Born January 29, 1882, in Hutchinson, Minnesota, Dr. Lauzer came to Rock Springs in 1905 as physician for the Union Pacific Coal Company and Union Pacific Railroad. He later went into private practice.

Dr. Lauzer also served several terms as mayor of Rock Springs.

After his retirement in 1946, Dr. Lauzer did cancer research in California and then moved to Cora to the C and L Bar Ranch where he lived until the time of his death.

He is survived by a stepdaughter, Mrs. Thomas Kitchen, and a grandson, Thomas Kitchen, both of Cora.



### Obituaries

#### Lakewood loses one of its best

George E. Mason, M.D., died on May 7, 1960, in Colorado General Hospital. Dr. Mason was born in Sandoval, Illinois, on March 20, 1905, and was a graduate of St. Louis University Medical School in 1931. He settled in Evergreen, Colorado, in 1933 and received his Colorado license the same year. In 1946 he moved to Lakewood where he practiced medicine until this year. He was a member of the Clear Creek Valley Medical Society, as well as the Colorado State Medical Society.

Dr. Mason was a World War II veteran and was active in the Veterans of Foreign Wars and the American Legion. St. Anthony's Hospital was where he practiced and he served on many important committees at that hospital. Surviving the

doctor are his wife, two daughters, a son and his mother.

### Death ends 50-year work

Royal Haughlein Finney died in Pueblo on January 25, 1960. Dr. Finney was born in 1883 in Indiana Territory and moved to La Junta, Colorado, with his parents as a small boy, his father being chief surgeon for the Santa Fe Railway at La Junta for many years. Dr. Finney graduated from Harvard University Medical School in 1910 and was licensed to practice in Colorado in the same year. He settled in Pueblo and had practiced in that city since that time.

Dr. Finney was cited at the Annual Staff Dinner for his 50th year of affiliation with St. Mary-Corwin Hospital. In 1950 he became a life emeritus member of the Colorado State Medical Society.

Survivors include his widow, two sons and a sister. One of his sons, Dr. R. Milton Finney, practices in Houston, Texas.



### Mary Swift Memorial Lecture

September 3—this is the date of the next Mary Swift Memorial Lecture. Dr. John A. Newman, Secretary of the Mary Swift Memorial Tumor Clinic and Registry, Butte, Montana, advises that Drs. John M. Waugh and Malcolm Dockerty, members of the staff of the Mayo Foundation for Medical Education and Research, will be guest speakers at the Butte meeting.



### 30th Annual Meeting of Biological Photographic Association

Photographers and scientists interested in the application of new photographic technics and equipment in the field of biology will convene in Salt Lake City, Utah, this summer for the 30th annual meeting of Biological Photographic Association. The meeting will be held August 23rd through 26th with headquarters at the Hotel Utah Motor Lodge. For further information please contact: Arland E. Olson, Utah State University, Veterinary Science Dept., Logan, Utah.



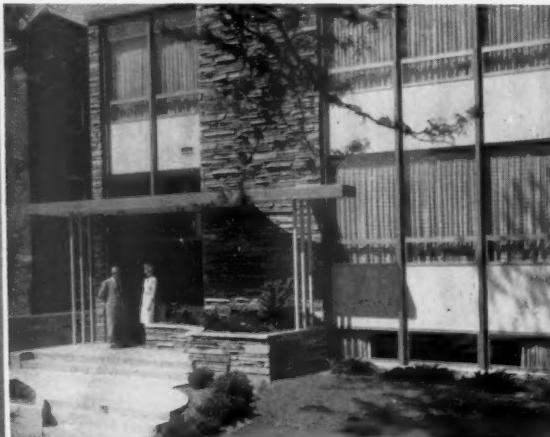
## Utah's New Headquarters Building

The Utah State Medical Association took its rightful place in the community last year with the completion of new construction and remodeling at its building, 42 South 5th East, Salt Lake City.

Also occupying the building is the Salt Lake County Medical Society. The completely renovated structure provides adequate space for both

the Utah State Medical Association and the Salt Lake County Medical Society.

Also provided is extra space for any future expansion. Besides the auditorium which will accommodate approximately 100 persons, the building has a board room for Council meetings. A total of three meetings can be held within the structure concurrently without interference.



Top left: View of the executive offices showing Mr. Harold Bowman, Executive Secretary. Top right: Inside entrance. Middle left: View of hallway, showing filing system. Middle center: Exterior view of the new headquarters building. Middle right: Interior view showing a portion of

the auditorium. Bottom left: View of the interior of the office showing Mrs. Maxcine Fry, Miss Arlene Hillman, and Miss Verdene Arthur. Bottom right: Council room with seating capacity of 18 plus overflow of 10 could be seated in adjoining room.





## Tenth Annual Conference Reno Surgical Society

The Mapes Hotel  
Reno, Nevada  
August 18-20, 1960

### Wednesday, August 17

Cocktail Party, Nevada Room, The Mapes Hotel

### Thursday, August 18

#### Morning

Carcinoma of the Mouth—Grantley W. Taylor, M.D., Weston, Massachusetts  
Management of Stress Incontinence in the Female—John C. Ullery, M.D., Columbus, Ohio  
Postoperative Pain—Proper Approach to Management—John J. Bonica, M.D., Tacoma  
Safety and Hazards of Atomic Energy—John H. Lawrence, M.D., Berkeley

#### Afternoon

Chemistry and Pharmacology of Hypovolemic Shock—Jonathan E. Rhoads, M.D., Philadelphia  
Diagnosis and Management of Electrolyte Depletion States—J. Max Rukes, M.D., San Francisco  
Treatment of Pancreatitis—J. Englebert Dunphy, M.D., Portland  
Treatment of Fresh Thoracic Trauma—Paul C. Samson, M.D., San Francisco

### Friday, August 19

#### Morning

Tissue and Organ Transplants—J. Englebert Dunphy, M.D.  
Esophageal Hiatus Hernia—Paul C. Samson, M.D.  
Acute Renal Failure—J. Max Rukes, M.D.

### A loving tribute to a friend of medicine

Bill Reinbold, business associate and friend, died suddenly Wednesday, June 22. He had just arrived in Estes Park to make a last minute check on the exhibit area that he was installing for the Nuclear Medicine Society meeting.

Bill, as the owner and head of the William H. Reinbold Decorating Company, had been the retained decorator for Colorado State Medical Society meetings for a dozen years. He had gained respect of the many doctors and exhibitors who had the privilege of learning the cooperative, friendly enthusiasm he demonstrated in his services—not only to the Colorado State Medical So-

Gross Pathology, Diagnosis and Clinical Management of Ovarian Enlargements—John C. Ullery, M.D.

Preventive Surgery—The Calculation of the Risks and Gains—Jonathan E. Rhoads, M.D., Panel Discussion

#### Afternoon

Regional Anesthesia in Surgical Practice—John J. Bonica, M.D.

Management of Lymph Node Metastases—Grantley W. Taylor, M.D.

#### Evening

Barbecue—Dance—Entertainment

### Saturday, August 20

#### Morning

Panel Round Table Discussion With Questions From Attending Physicians—John W. Cline, M.D., San Francisco, Moderator

### The Scientific Exhibit, A.M.A.

Clinical Meeting, Washington, D. C.

November 28-December 1, 1960

Application forms for space in the Scientific Exhibit at the Washington, D. C., Clinical Meeting of the American Medical Association, November 28 to December 1, are now available. They may be procured by writing directly to Charles H. Bramlett, M.D., Director, Department of Scientific Assembly, American Medical Association, 535 N. Dearborn St., Chicago 10, Illinois. Applications close on August 1.

The "Hull" award will be presented for the first time at this meeting to the best exhibit on a scientific subject which has not been previously shown at a medical meeting. The award will consist of a gold medal and an honorarium of \$250. The winning exhibit will be approved for showing in the Scientific Exhibit at the 1961 Annual Meeting of the A.M.A. which will be held in New York City.

Dr. Thomas G. Hull will personally present the award to the recipient.

ciety but a vast number of medical meetings in Colorado and the other Rocky Mountain states.

His rare qualities of dedication, honesty, and warmth of character lifted him above the ordinary relationship of a retained associate. He gave of his services liberally, but he gave much more than that—no request was too simple, nor too large for his immediate attention. None of us realizes fully how much he did to make our medical meetings successful. We shall learn, and we shall miss him. He will long be remembered, for many of our lives have been enriched for having known and worked with him.



when that early Monday morning telephone call is from a weekend do-it-yourselfer

"...and this morning, Doctor, my back is so stiff and sore I can hardly move."

now...there is a way to prompt, dependable relief of back distress

*the pain goes while the muscle relaxes*

**POTENT — rapid relief in acute conditions**

**SAFE — for prolonged use in chronic conditions**

**notable safety** — extremely low toxicity; no known contraindications; side effects are rare; drowsiness may occur, usually at higher dosages

**rapid action, sustained effect** — starts to act quickly, relief lasts up to 6 hours

**easy to use** — usual adult dosage is one 350 mg. tablet 3 times daily and at bedtime

**supplied** — as 350 mg., white, coated tablets, bottles of 50; *also available for pediatric use:* 250 mg., orange capsules, bottles of 50

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**SOMA** T.M.

(CARISOPRODOL WALLACE)



## CORRESPONDENCE

**EDITOR'S NOTE**—The author of the following letter has understandably requested that, if published, all names, including his own, be deleted. Even without the names, we believe it will warm many a heart.

To the Editor:

Ever so often in the daily course of events one encounters an individual conspicuous by his magnanimity, selflessness, and genuine dedication to duty. Unfortunately, such an individual is becoming a rarity—even among the medical profession.

Because I have had the privilege of knowing such a person for the past 10 years—and because he is a member of the medical profession in \_\_\_\_\_ I have been prompted to write you concerning his notable attributes.

My subject is Dr. \_\_\_\_\_ I have known Dr. \_\_\_\_\_ for nearly 10 years. During that time he has been our family doctor. During the time I have been privileged to know Dr. \_\_\_\_\_, I have been amazed at his professional skill and even more awed by his

genuine devotion to duty and outstanding kindness.

As far as myself and my family are concerned, Dr. \_\_\_\_\_ is an epitome as a doctor. I have a chronic illness for which I need continuous treatment and care. In our early years of marriage, my wife and I were in reasonably good financial condition and were able to pay our doctor bills regularly. With the arrival of four children, our responsibilities became greater. With increased responsibilities came, suddenly and unexpectedly, an unusual surge of illness to several members of the family. This illness involved great expenditures for prescription drugs, the calling in of specialists, surgery, and long months of hospitalization for one or more members of the family. We were backed up against the financial wall and had serious difficulty paying our bills, medical and otherwise.

All through this troublous time—a period of nearly five years—Dr. \_\_\_\_\_ stuck by our family. Time and time he administered valuable care to various members of the family when payment for his services was impossible. During this period he was more than just a family physician. He was a true friend.

Knowing our financial position, he sternly ordered us not to pay until we could afford to do so. Once during this period I tried to pay him something for his fine work and, when he found out that I had borrowed from a finance company to

# 3-way support for the aging patient...

ASSISTS PROTEIN UPTAKE  
IMPROVES MENTAL OUTLOOK  
AIDS NUTRITIONAL INTAKE

# NEW GEVRESTIN®

1 small capsule every morning

Geriatric Vitamins-Minerals-Hormones-d-Amphetamine Lederle

Each capsule contains: Ethinyl Estradiol 0.01 mg. • Methyl Testosterone 2.5 mg. • d-Amphetamine Sulfate 2.5 mg. • Vitamin A (Acetate) 5,000 U.S.P. Units • Vitamin D 500 U.S.P. Units • Vitamin B<sub>12</sub> with AUTRINIC® Intrinsic Factor Concentrate 1/15 U.S.P. Unit (Oral) • Thiamine Mononitrate (B<sub>1</sub>) 5 mg. • Riboflavin (B<sub>2</sub>) 5 mg. • Niacinamide 15 mg. • Pyridoxine HCl (B<sub>6</sub>) 0.5 mg. • Calcium Pantothenate 5 mg. • Folic Acid 0.4 mg. • Choline Bitartrate 25 mg. • Insolitol 25 mg. • Ascorbic Acid (C) as Calcium Ascorbate 50 mg. • Lysine Monohydrochloride 25 mg. • Vitamin E (Tocopherol Acid Succinate) 10 Int. Units • Rutin 12.5 mg. • Ferrous Fumarate (Elemental Iron, 10 mg.) 30.4 mg. • Iodine (as KI) 0.1 mg. • Calcium (as CaHPO<sub>4</sub>) 35 mg. • Phosphorus (as CaHPO<sub>4</sub>) 27 mg. • Fluorine (as CaF<sub>3</sub>) 0.1 mg. • Copper (as CuO) 1 mg. • Potassium (as K<sub>2</sub>SO<sub>4</sub>) 5 mg. • Manganese (as MnO<sub>2</sub>) 1 mg. • Zinc (as ZnO) 0.5 mg. • Magnesium (MgO) 1 mg. • Boron (as Na<sub>2</sub>B<sub>3</sub>O<sub>5</sub>·10H<sub>2</sub>O) 0.1 mg. Bottles of 100, 1000.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York 

do so, he literally "blew sky high" and tried to return the money. Now that we are back on our feet a little bit, we are beginning to catch up, although we're still far behind. Although it is necessary for me to see him nearly twice a month, we never get a bill.

In addition to his generosity and adherence to the Hippocratic oath, Dr. \_\_\_\_\_ is highly dedicated to his profession. He constantly keeps up on new developments within the medical profession. I happen to know that he loves medicine, that he is not satisfied to rest on his present knowledge but is constantly reading up on his field.

If the medical profession in the United States within the next few years is able to stave off the great pressure now being exerted for some form of socialized medicine, it will owe its success in this fight to men like Dr. \_\_\_\_\_. For when men like Dr. \_\_\_\_\_ look at a patient across their desks, they see not just a case but a human being, a fellow human being whose suffering will be relieved—whose life will be a little bit happier—because they have augmented their professional skills with a sense of ideals.

I consider the information I have set down in this letter to be confidential and presume that it will be treated as such. In no way would I wish Dr. \_\_\_\_\_ to know that it was I that wrote this letter to you. However, I felt that the

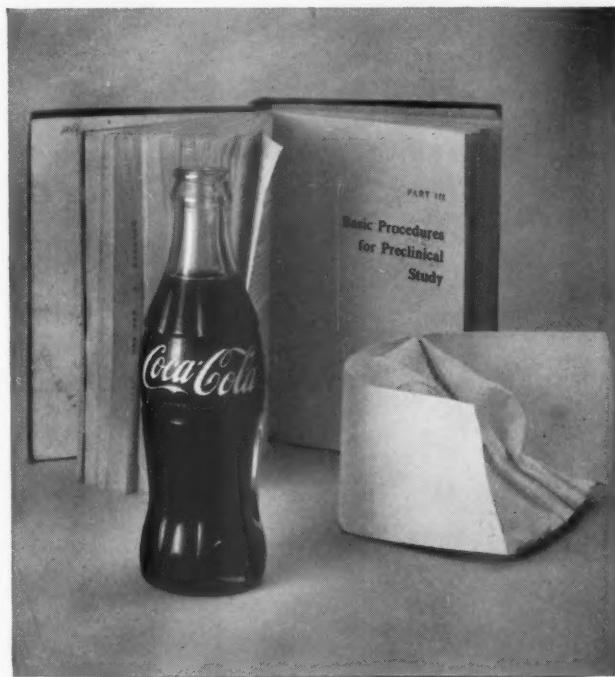
fine work of this man should be called to the attention of responsible people within the medical profession.

Sincerely,

To the Editor:

In the February 20 issue of the Rocky Mountain Medical Journal, R. J. Groeger, M.D., raised various objections to direct-mail advertising by the pharmaceutical industry. Dr. Groeger asked whether this kind of promotion was necessary at all, and asked how much money could be saved and passed on to the consumer by its elimination. As most physicians, he places a great deal of reliance upon the detail man as a source of product information. However, because of the time lapse between calls, direct mail and journal advertising both help remind the physician about new and improved products brought to his attention by the detail man. In addition, new and important information about a product often comes to light between a salesman's calls, and direct mail is the quickest way to reach the physician.

The cost of direct mail adds less than one percent to the cost of pharmaceuticals sold by Eli Lilly and Company. Discontinuing direct mail would effect virtually no savings that could be passed on to the consumer. In fact, direct mail is one means of advertising that makes lower prices



When too many tasks  
seem to crowd  
the unyielding hours,  
a welcome  
"pause that refreshes"  
with ice-cold Coca-Cola  
often puts things  
into manageable order.





TO REDUCE INTESTINAL

# GAS

BELCHING BLOATING FLATULENCE

A biochemical compound used to diminish intestinal gas in healthy persons and those patients having digestive disorders

# KANULASE

Each Kanulase tablet contains Dorase,<sup>®</sup> 320 units, combined with pepsin, N.F., 150 mg.; glutamic acid HCl, 200 mg.; pancreatin, N.F., 500mg.; oxbileextract, 100 mg. Dosage: 1 or 2 tablets at meal-time. Supplied: Bottles of 50 tablets.

DORASE BRAND OF PANCREASE, EXPRESSED AS DIGESTIVE ACTIVITY UNITS.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska

possible. Research has shown that direct mail does encourage additional sales and, consequently, it is useful in permitting a high volume to establish a lower unit price. The premise that a high volume achieves a lower price is the basis of all advertising programs in the pharmaceutical industry, as well as in all American industry, and both have found that direct mail plays a significant role toward that end. In the total view, direct mail advertising benefits both the industry and consumer.

Whether such advertising is of value, each physician must decide for himself. Honesty and substance of the copy are what he must consider. But whatever the quality, it undeniably reflects the integrity of the maker. It thus serves as a helpful guide in the choice of medicinals.

Sincerely yours,

ELI LILLY AND COMPANY,  
Gene E. McCormick



"Now I know why he saves his sleeping pill until visiting hour!"

## ARTIFICIAL EYES

Plastic eyes and glass eyes special made to fit the most difficult cases. An expert eye-maker is in our office at all times to give your patients the satisfaction they must have. In business since 1906.



Write or phone for full details.

**DENVER OPTIC COMPANY**

Telephone MA. 3-5638

330 University Bldg. 910 16th St. Denver 2, Colo.

**P.A.F. CASE pH<sup>4</sup>**

**Douche Powder**  
For Refreshing Feminine Daintiness

R

(FORTIFIED TRIPLE STRENGTH)

Buffered to control a normal vaginal pH. The new, improved P.A.F. formula now includes—sodium lauryl sulfate and alkyl aryl sulfonate, providing high surface detergent activity in acid and alkaline media.

P.A.F.'s low surface tension increases penetration into the vaginal rugae and dissolution of organisms including trichomonas and fungus.

P.A.F.'s high surface activity liquefies viscous mucus on vaginal mucosa, releasing accumulated debris in the vaginal tract. Non-irritating, non-staining, no offensive after odor.

G. M. CASE LABORATORIES  
San Diego, California

## SIGN OF QUALITY . . . SIGN OF FLAVOR!



UNITED "ALL STAR" DAIRIES MILK is vacuum filtered for better taste by our exclusive "flavor-guard" Process . . . removing all unwanted flavors, leaving only the sweet, natural taste of milk—any season, all year 'round! UNITED "ALL STAR" DAIRY Milk is available on home route delivery.

**UNITED "ALL STAR" DAIRY, INC.**

AComa 2-1655

2401 W. 6th Ave. at Valley Highway

**When summertime  
chores bring on  
LOW BACK PAIN**

**Trancopal®**

Brand of chlormezanone

**relaxes skeletal  
muscle spasm—  
ends disability.**



**How Supplied:** Trancopal Caplets®  
200 mg. (green colored, scored), bottles of 100.  
100 mg. (peach colored, scored), bottles of 100.

**Dosage:** Adults, 200 or 100 mg. orally three or four times daily. Relief of symptoms occurs in from fifteen to thirty minutes and lasts from four to six hours.

**References:** 1. Lichtman, A. L.: *Kentucky Acad. Gen. Pract. J.* 4:28, Oct., 1958. 2. Lichtman, A. L.: Scientific Exhibit, Internat. Coll. Surgeons, Miami Beach, Fla., Jan. 4-7, 1959. 3. Gruenberg, Friedrich: *Current Therap. Res.* 2:1, Jan., 1960. 4. Kearney, R. D.: *Current Therap. Res.* 2:127, April, 1960.

**Winthrop** LABORATORIES  
New York 18, N.Y.

TRANCOPAL (BRAND OF CHLORMEZANONE) AND CAPLETS, TRADEMARKS REG. U.S. PAT. OFF.

1500M

**W**hen any of a host of summer activities brings on low back pain associated with skeletal muscle spasm, your patient need not be disabled or even uncomfortable. The spasm can be relaxed with Trancopal, and relief of pain and disability will follow promptly.

Lichtman<sup>1,2</sup> used Trancopal to treat patients with low back pain, stiff neck, bursitis, rheumatoid arthritis, osteoarthritis, trauma, and postoperative muscle spasm. He noted that Trancopal produced satisfactory relief in 817 of 879 patients (excellent results in 268, good in 448 and fair in 101).

Gruenberg<sup>3</sup> prescribed Trancopal for 70 patients with low back pain and observed that it brought marked improvement to all. "In addition to relieving spasm and pain, with subsequent improvement in movement and function, Trancopal reduced restlessness and irritability in a number of patients."<sup>3</sup> In another series, Kearney<sup>4</sup> reported that Trancopal produced relief in 181 of 193 patients suffering from low back pain and other forms of musculoskeletal spasm.

Trancopal enables the anxious patient to work or play. According to Gruenberg, "In addition to relieving muscle spasm in a variety of musculoskeletal and neurologic conditions, Trancopal also exerts a marked tranquilizing action in anxiety and tension states."<sup>3</sup> Kearney<sup>4</sup> found "...that Trancopal is the most effective oral skeletal muscle relaxant and mild tranquilizer currently available."

Side effects are rare and mild. "Trancopal is exceptionally safe for clinical use."<sup>3</sup> In the 70 patients with low back pain treated by Gruenberg,<sup>3</sup> the only side effect noted was mild nausea which occurred in 2 patients. In Lichtman's group, "No patient discontinued chlormethazanone [Trancopal] because of intolerance."<sup>1</sup>

## Medical prepayment and our social philosophy

"A curious paradox of some contemporary social philosophy is the idea that man should spend what he earns for his pleasures rather than for what he needs. It is appropriate, so this reasoning goes, that he should buy a television set, a vacation in Florida or an outboard motor boat, because these are cardinal rights. But for something that he really needs, such as his life or his health, or the life of his child, someone else should pay. This may be the government, his employer, his union, his great-aunt or anyone else who can be cajoled or coerced into paying the price for him. If no one

else will pay for it, the doctor should serve him for nothing."

This observation by Dr. C. Marshall Lee, Jr.,\* raises a question of crucial importance not only to the medical economy but to the whole pattern of our American society.

For, as Dr. Lee puts it, the attitude he describes "may be acceptable for the child of an indulgent parent, but it is not appropriate for a free man in a free society."

What can the doctor do to counteract this

\*"The Challenge of Medical-Care Insurance," C. Marshall Lee, Jr., M.D., Assistant Medical Director, John Hancock Mutual Life Insurance Company, *The New England Journal of Medicine*, 262:7, pp. 332-42, Feb. 18, 1960.

## Picker X-Ray, Rocky Mountain, Inc.

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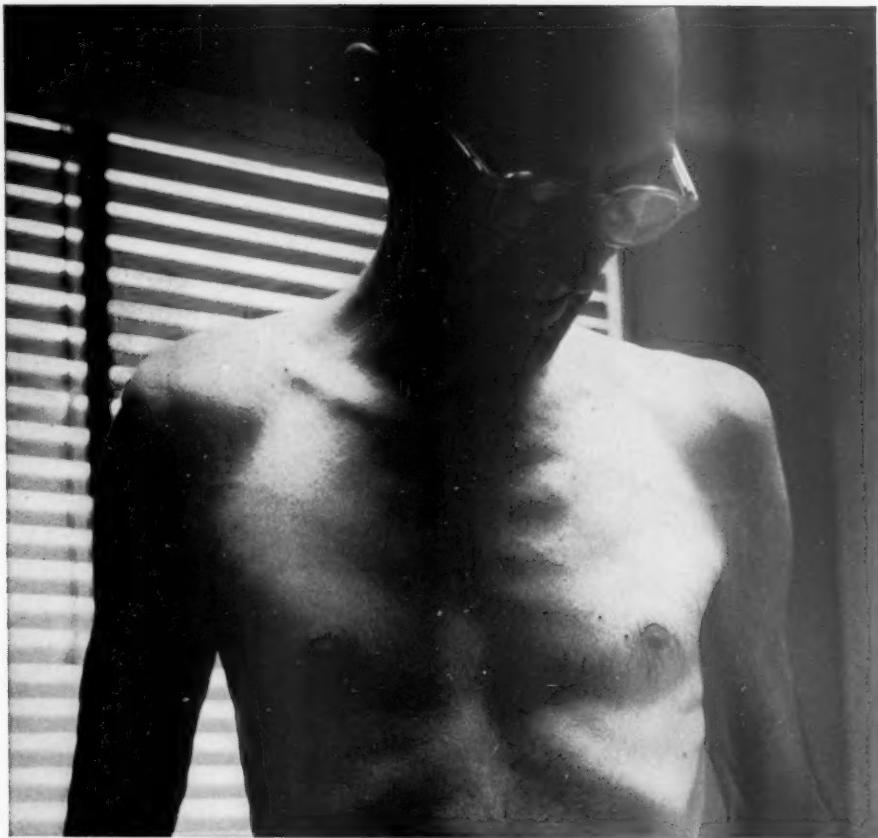


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4. Yea, though I struggle with reports unto the dead of night, I will not catch up; for they are with me always, their penalties discomfet me.
5. It has obliged me to conduct my business in the presence of its agents; it fills my files with forms; my funds runneth out.
6. Surely, its rules and regulations shall follow me all the days of my life; and I may dwell in the big house of my Uncle forever.

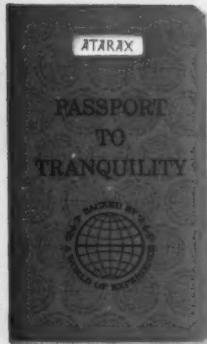
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"... Atarax appeared to reduce anxiety and restlessness, improve sleep patterns and make the child more amenable to the development of new patterns of behavior..." Freedman, A. M.: Pediat. Clin. North America 5:573 (Aug.) 1958.

## ...and for additional evidence

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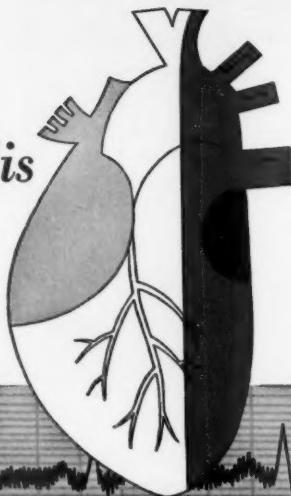
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Lown, B., and Levine, S. A.: Current Concepts in Digitalis Therapy.  
Boston, Little, Brown & Company, 1954, p. 23, par. 2.

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The Third International Congress of Physical Medicine will be held August 21-26, 1960, inclusive, at The Mayflower, Washington, D. C.

The preliminary prospectus covering the international conference carries in detail information on registration, application to present a paper, a scientific exhibit, a scientific film, etc. A copy of this preliminary program may be had on request by writing: Dorothea C. Augustin, Executive Secretary, Third International Congress of Physical Medicine, 30 N. Michigan Avenue, Chicago 2, Illinois.

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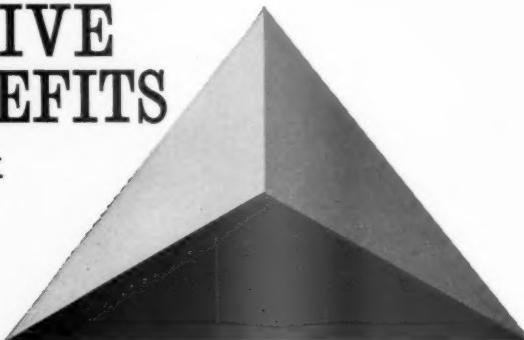
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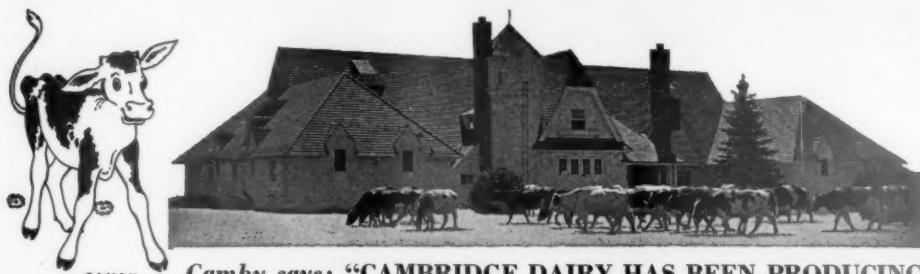
## Correction

We have been notified of an error which appeared in the "Reminds in Therapeutics" feature, "Management of auricular fibrillation with digitalis and quinidine," carried in the February, 1960, issue of the Rocky Mountain Medical Journal. In the first paragraph, item No. 5 reads, "Quinidine and digitalis, particularly the latter, should be given according to the patient's individual needs and clinical reactions." It should have read, "Quinidine and digitalis, particularly the former . . ."

## Western Cardiac Conference

The Western Cardiac Conference of the Colorado Heart Association will be in Denver, August 16-20, at Veterans Administration Hospital and Phipps Auditorium. The conference is approved for 28 hours of A.A.G.P. Category I credit.

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## A medical potpourri

Compiled by Andrew M. Babey, M.D., Las Cruces, New Mexico

1. "Dripps, in a concise review of these problems, quotes the British Consulting Pathologist Committee as follows, 'It appears unjustifiable to place any patient at a risk for one pint of blood.' In one large medical center 45 per cent of the patients transfused received but a single unit. The misuse of blood has promulgated the philosophy among several authorities that a single physician in charge of the blood bank should have authority to disapprove individual transfusion requests." Finch, Stuart C.: Special Therapeutics (Transfusions). *Ibid.*, p. 307.

2. "Downs states that 'circulatory overloading is now probably the most common cause of death from transfusions when proper methods are employed to prevent incompatibilities.'" *Ibid.*

3. "Depending on the medium used, the growth of typical tubercle bacilli required from four to 12 weeks. In usual circumstances a few true tubercle bacilli, particularly those obtained from patients after prolonged chemotherapy, may require up to 15 to 25 weeks for growth." Mitchell, R. S., and Bower, P. C.: Diseases of the Respiratory System, *ibid.*, p. 359.

4. "Patients with leaking abdominal aortic aneurysms may appear to be stabilized an hour or two after the initial bleeding episode and seem more comfortable, as in the present case. These are treacherous lesions, however, and one must proceed posthaste to repair them surgically. We have been falsely reassured in the past by the apparent improvement of a patient who has had what seemed to be a 'little leak,' booked an operation on the regular list for the following day and seen death result from a massive bleeding episode in the middle of the night. Dissecting aneurysms behave similarly, and it behooves us to try to make the diagnosis as early as possible and to operate before the patient is in desperate straits with hemorrhagic shock or pericardial tamponade." Shaw, Robert S.: Discussion in Case No.

45321, Case Records of the Massachusetts General Hospital, *New England J. Med.* 261:294 (Aug. 6), 1959.

5. "It is puzzling that in people with chronic pulmonary disease the hematocrit almost always remains below about 60 per cent, whereas in people with polycythemia vera or with congenital heart disease it may rise to 75 per cent." Freymann, J. G.: Discussion in Case 45311, Case Records of the Massachusetts General Hospital, *New England J. Med.* 261:242 (July 30), 1959.

6. "It is a man's duty to provide moderately for his family, but anything beyond this may be a detriment to his descendants." Mayo, C. H., and Mayo, W. J.: Aphorisms, edited by F. A. Willius, Springfield, Charles C. Thomas, 1951.

7. "In patients complaining of weakness which is not readily explained, think of adrenal insufficiency, chronic brucellosis, myasthenia gravis, hyperparathyroidism, and hyperthyroidism." Thorn, George W.: Second Annual Shannon Lectureship in Medicine, delivered in San Angelo, Texas, October 18, 1958.

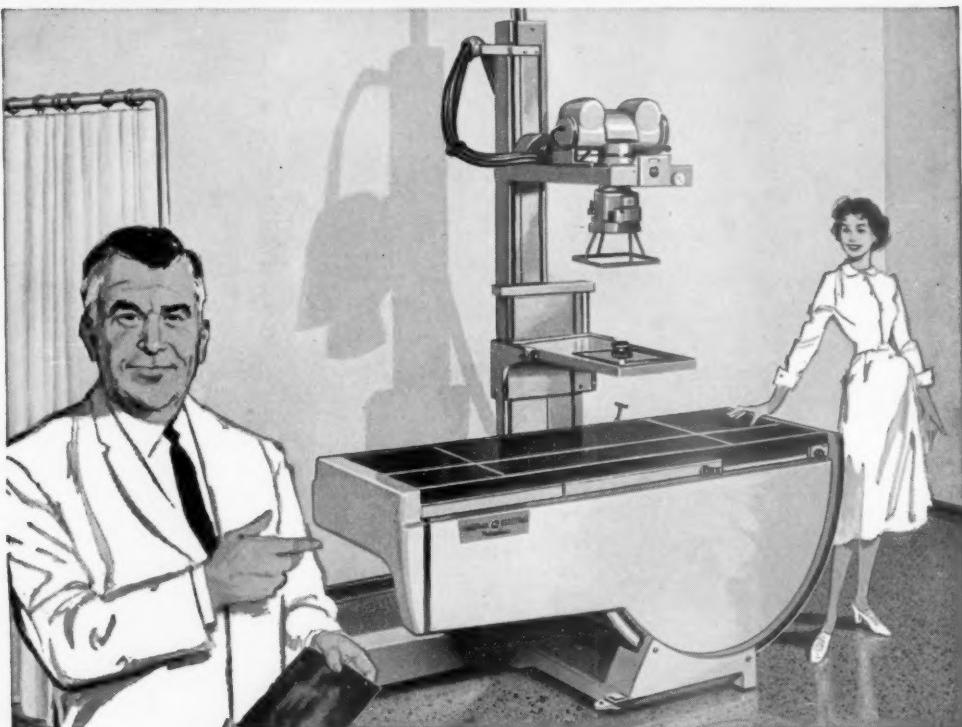
8. "When weakness is associated with no weight loss, you can rule out Addison's disease." *Ibid.*

9. "In patients with polydipsia and polyuria, think not only of diabetes but renal disease, hyperaldosteronism, Vitamin D intoxication and severe potassium depletion." *Ibid.*

10. "Every patient with hypertension should be thought of as a possible Cushing's disease, hyperaldosteronism or pheochromocytoma." *Ibid.*

11. "Always think of Cushing's disease in a patient with spontaneous ecchymoses. Such patients are very susceptible to bruising and subcutaneous bleeding." *Ibid.*

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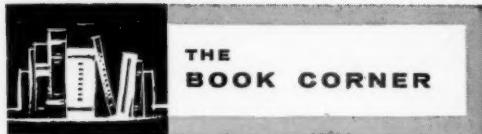
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### New books received

New books received are acknowledged in this section. From these, selections will be made for reviews in the interests of the readers. Books here listed will be available for lending from the Denver Medical Library soon after publication.

**Current Therapy—1960:** Edited by Howard F. Conn, M.D. Philadelphia, W. B. Saunders Co., 1960. 308 p. Price: \$12.00.

**Christopher's Textbook of Surgery:** Edited by Loyal Davis, M.D. 7th edition. Philadelphia, W. B. Saunders Co., 1960. 1551 p. Price: \$17.00.

**The Older Patient:** By twenty-one authors. Edited by Wingate M. Johnson, M.D. New York, Paul B. Hoeber, Inc., 1960. 559 p. Price: \$14.50.

**Clinical Obstetrics and Gynecology, Vol. 2, No. 4, December 1959:** New York, Paul B. Hoeber, Inc., 1959. Price: \$18.00 per year.

**New and Nonofficial Drugs:** By American Medical Association, Council on Drugs. Philadelphia, J. B. Lippincott Co., 1960. 464 p.

**Basic Office Dermatology:** By Stuart Maddin, M.D., J. L. Danto, M.D., and W. D. Stewart, M.D. Springfield, C. C. Thomas Co., 1960. 308 p. Price: \$11.75.

**Your Heart; A Handbook for Laymen:** By H. M. Marvin, M.D. Garden City, Doubleday & Co., 1960. 335 p. Price: \$4.50.

**Drugs of Choice, 1960-1961:** Edited by Walter Modell, M.D. St. Louis, C. V. Mosby, 1960. 958 p. Price: \$13.50.

**Smoking and Health:** By Alton Ochsner, M.D. New York, Julian Messner, Inc., 1959. 108 p. Price: \$3.00.

**Anatomy; a Regional Study of Human Structure:** By Ernest Gardner, M.D., D. J. Gray, Ph.D., and Ronan O'Rahilly, M.D. Philadelphia, W. B. Saunders Co., 1960. 999 p. Price: \$15.00.

**Clinical Obstetrics and Gynecology, Vol. 3, No. 1, March 1960:** New York, Paul B. Hoeber, Inc. Price: \$18.00 per year.

### Book reviews

**Hope Deferred:** By Jeanette Seletz. N. Y., Vantage Press, 1943, 1959. 546 p. Price: \$4.50.

In 1924, there appeared a book entitled "Arrowsmith" by one Sinclair Lewis, Nobel Laureate. This work became a prototype for the modern medical novel, supplying ingredients which the public has come to expect. The hero is either to-

tally indigent or a millionaire playboy, struggles valiantly through the maelstrom of medical school, only subsequently to pit his altruism against the prejudices and follies of atavistic professional colleagues. This dish never lacks corn. Lloyd C. Douglas's "The Magnificent Obsession" added tears, and Morton Thompson's "Not as a Stranger" a dash of spice. Frank Slaughter's steady stream of pulp literature is characterized mainly by several dashes of the latter. A refreshing change was briefly provided by Andre Soubiran's three-tome novel "Men in White" and Gerald Green's "The Last Angry Man," in which sociologic and economic problems confronting physicians were portrayed.

One of the latest additions to this series of medical novels is "Hope Deferred" by Jeanette Seletz. It is difficult at times to delineate which age group this book is intended for. True to form, the hero is impoverished, either initially or eventually, of hard currency, parents, friends, and a wife as he meanders through medical college, internship and a residency, most of the time in an inexplicable daze. The sole driving interest in his rather banal life is Neurosurgery (with a capital N), always a mystical subject to a readily impressionable citizenry. The negative features of the book unfortunately far outweigh its principal positive asset, namely, the evident sincerity of style and narration. The bulk, contrariwise, is marred by a jejune story, with sterile character studies and a predictable plot. It is unlikely the book will appeal even to Hollywood in its present form unless Sal Mineo or Fabian be called on to portray the lymphatic young Dr. Jone Brent.

Physicians have long been aware that the most fascinating tales in medicine can be culled from the biographies of eminent physicians. The successful appearance in recent years of semi-fictionalized versions of the lives of Ignaz Semmelweis and John Hunter, and accounts by Jurgen Thorwald of surgical progress during the 19th century attest to this fact. Might not Miss Seletz direct her writing talents to far better advantage with models such as, say, Paré, Vesalius or Laennec?

David C. Schechter, M.D.

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**Principles of Disability Evaluation:** By Wilmer Cauthorn Smith, M.D. Philadelphia, J. B. Lippincott Co., 1959. 210 p. Price: \$7.00.

Every physician engaged in rating disabilities, or testifying in court regarding relationship of injury to a medical condition, will want to read this short treatise. The author demonstrates his long experience with the subject. He served as a member of the Oregon State Industrial Accident Commission for many years.

The first introductory section consists of specific remarks on medical testimony, reports, and such a pertinent subject as excessive time loss. Helpful suggestions are given in order to make an objective evaluation in the presence of a multitude of subjective complaints.

The third section on Relationship is excellent. The relationship of injury and disability due to direct and indirect causes is discussed thoroughly and logically. One can recommend this section highly.

The fourth and last section on Disability Evaluation has less to recommend it. Granted that this is a difficult subject, this reviewer found that the author does not clarify the situation. Fortunately, there are available more extensive texts on the disability evaluation such as that of McBride (1953). Surprisingly, he includes no bibliography or references. New work is being done by such men as Mr. Bert Hanman in Massachusetts, on the positive approach to ability evaluation, using physical ability profiles. Workmen's Compensation legislation was passed for the benefit of the injured worker, on the basis of his resulting loss of ability to work. It seems logical to scientifically evaluate this ability for work by the best means at hand, instead of the traditional disability rating.

John D. Leidholt, M.D.

**Diseases of the Nose, Throat and Ear:** Edited by Chevalier Jackson, M.D., and Chevalier L. Jackson, M.D., with the collaboration of 61 outstanding authorities. 2nd edition. Philadelphia, W. B. Saunders Co., 1959. 886 p. Price: \$20.00.

As in the first edition of this very useful book, the broad aspects of otolaryngology are presented and brought up to date. It best fulfills its aim as a ready and ample reference text for daily use by practitioners. Some texts now recommended for medical students suffer by comparison in this respect. Specialists also can find in it ready guidance and a wealth of encompassing information considering that 61 authorities contributed in fields of their special interests. The reader will find that after a lapse of 14 years since the first edition, many sections have been rewritten as well as new articles by new authors added to keep pace with the great progress in this field. Diseases of the oral cavity and salivary glands, traumatic and maxillo-facial surgery, corrective and nasal plastic surgery, as well as other related aspects of head and neck surgery have been given due prominence. Laryngology and bronchoesophagology have been excellently presented and brought up to date by the editors in their usual comprehensive manner.

The fast-moving advances in otology have, in general, been modernized, although the most recent tympanoplasty and reconstructive measures presently being done to preserve and improve hearing in ears that have been damaged by chronic middle ear and mastoid diseases have escaped the attention they deserve. All in all, the volume is well rounded, highly authoritative, profusely illustrated and competently edited.

Herman J. Laff, M.D.

**Mazer and Israel's Diagnosis and Treatment of Menstrual Disorders and Sterility:** Edited by S. Leon Israel, M.D. 4th edition. New York, Paul B. Hoeber, Inc., 1959. 666 p. Price: \$15.00.

This, the fourth edition of a standard and popular text on menstrual disorders and sterility, has been completely rewritten, and represents the work of Dr. Israel alone. There have been many advances in the understanding and treatment of these conditions, and this revision brings the book very much up to date.

Perhaps the most outstanding feature is the practicality of its contents. Too often, exhaustive and authoritative works such as this are full of theory and generalities as to treatment. Here is a book that in lucid style gives you what is known about the condition, explicit directions for diagnosis, what can be done about treating it, with exact dosage of drugs, and what to expect in the way of results. What more can a general practitioner or a specialist ask?

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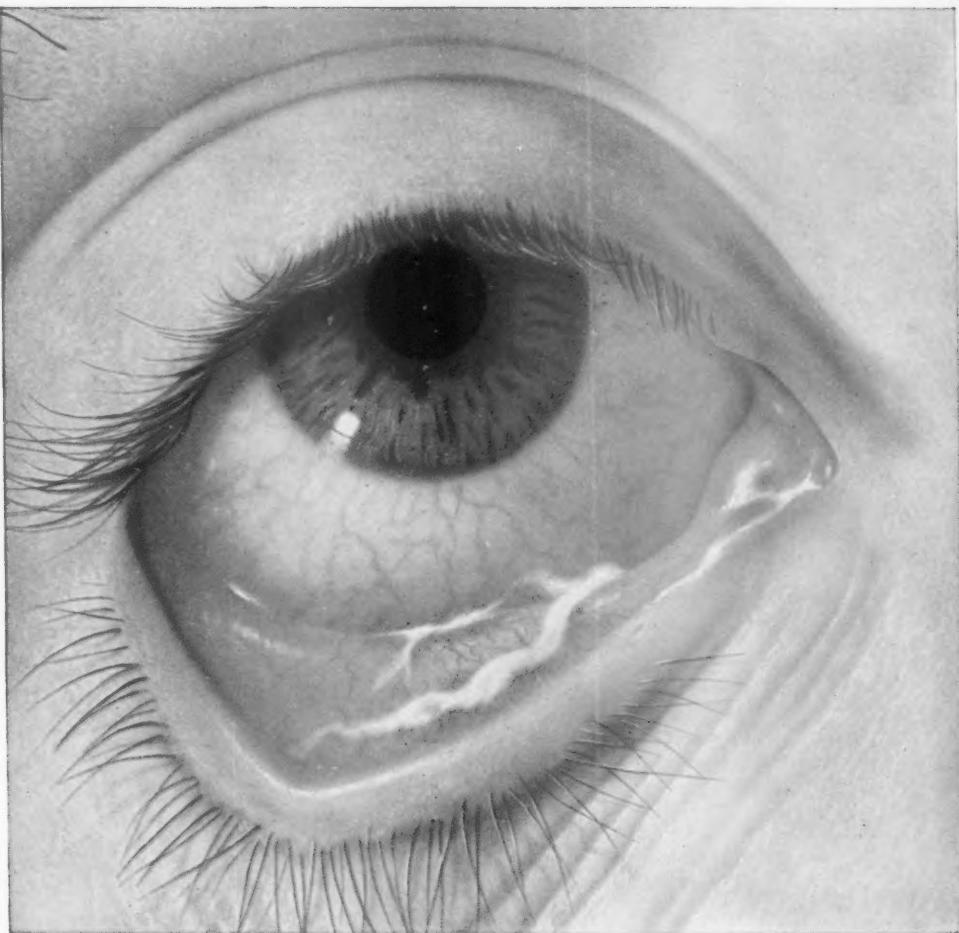
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# NEO-HYDELTRASOL®

PREDNISOLONE 21-PHOSPHATE-NEOMYCIN SULFATE

2,000 TIMES MORE SOLUBLE THAN PREDNISOLONE OR HYDROCORTISONE

"The solution of prednisolone has the advantage over the suspension in that no crystalline residue is left in the patient's cul-de-sac or in his lashes . . . . The other advantage is that the patient does not have to shake the drops and is therefore sure of receiving a consistent dosage in each drop."<sup>2</sup>

1. Lippmann, O.: Arch. Ophth. 57:339, March 1957.

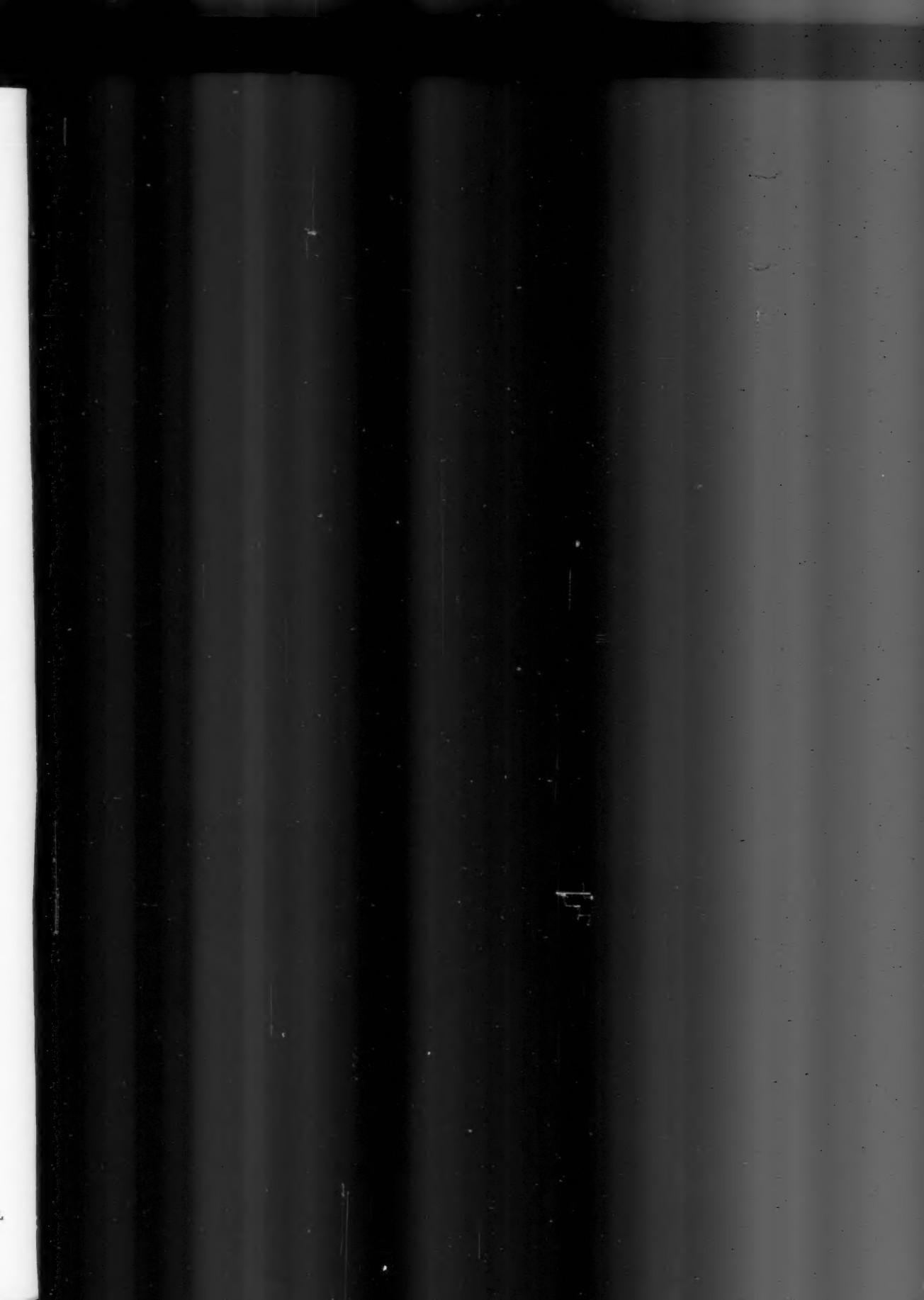
2. Gordon, D.M.: Am. J. Ophth. 48:740, November 1958.

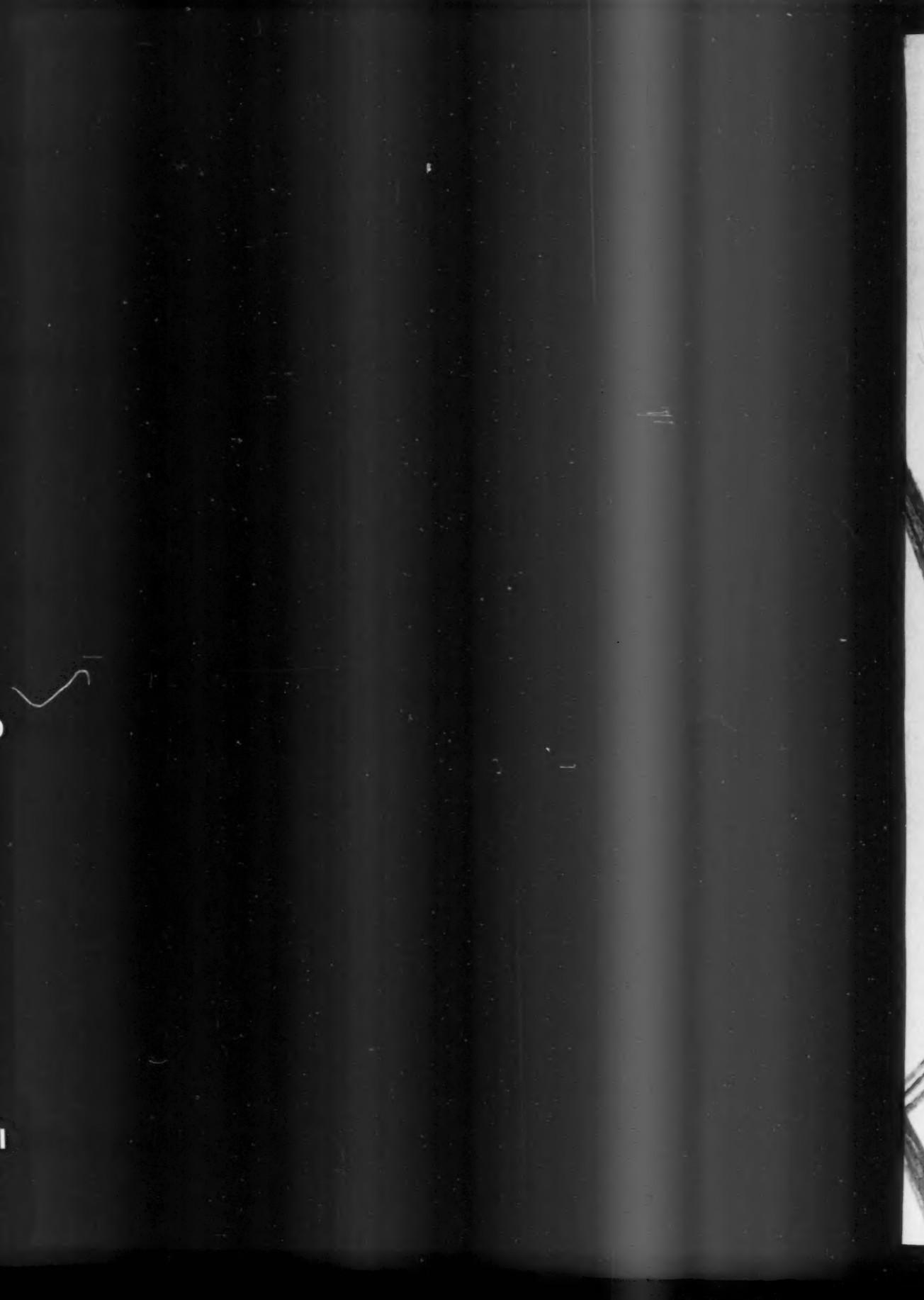
**supplied:** 0.5% Sterile Ophthalmic Solution NEO-HYDELTRASOL (with neomycin sulfate) and 0.5% Sterile Ophthalmic Solution HYDELTRASOL®. In 5 cc. and 2.5 cc. dropper vials. Also available as 0.25% Ophthalmic Ointment NEO-HYDELTRASOL (with neomycin sulfate) and 0.25% Ophthalmic Ointment HYDELTRASOL. In 3.5 Gm. tubes.

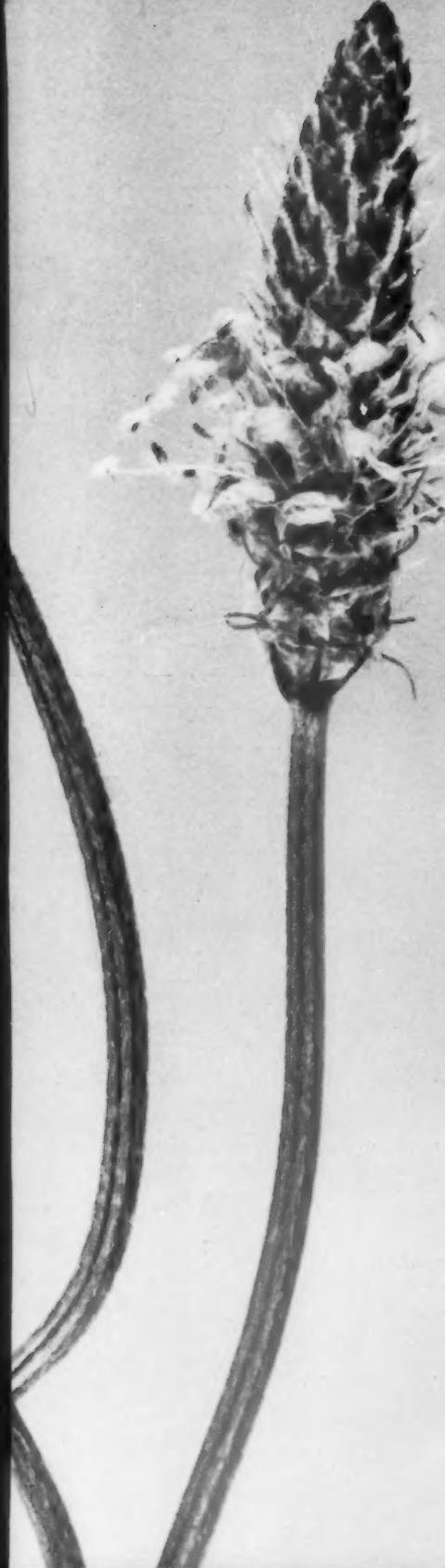
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when pollens harry the unwary  
**BENADRYL®**  
antihistaminic-antispasmodic  
gives prompt, comprehensive relief

In hay fever, BENADRYL provides simultaneous, dual control of allergic symptoms. Nasal congestion, lacrimation, sneezing, and related histamine reactions are effectively relieved by the *antihistaminic action* of BENADRYL. At the same time, its *antispasmodic effect* alleviates bronchial and gastrointestinal spasms. This duality of action makes BENADRYL valuable throughout a wide range of allergic disorders.

BENADRYL Hydrochloride (diphenhydramine hydrochloride, Parke-Davis) is available in a variety of forms including: Kapsseals,® 50 mg. each; Kapsseals, 50 mg., with ephedrine sulfate, 25 mg.; Capsules, 25 mg. each; Elixir, 10 mg. per 4 cc.; and for delayed action, Emplets®, 50 mg. each. For parenteral therapy, BENADRYL Hydrochloride Steri-Vials,® 10 mg. per cc.; and Ampoules, 50 mg. per cc.

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**P A R K E - D A V I S**

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